

Supplemental Table 1. Subgroup analysis inclusion and exclusion criteria

Inclusion Criteria

1. Male or female 18–49 years of age (inclusive)
 2. A participant from sites other than the CAIH with ≥ 1 of the following risk conditions for pneumococcal disease:
 - a. Diabetes mellitus type 1 or type 2, receiving treatment with at least 1 approved antidiabetic medication; with hemoglobin A1c $< 10\%$ at screening (Visit 1)
 - b. Chronic liver disease with compensated cirrhosis (Child-Pugh Class A) due to non-alcoholic fatty liver disease, chronic hepatitis B, chronic hepatitis C, or alcoholic liver disease, diagnosed by clinician’s assessment, with at least 1 of the following liver staging assessments. (Note: in cases in which more than 1 staging assessment is available, only 1 result may be used to determine fibrosis status. Biopsy should be preferred over every other test and FibroScan[®] over the blood test-based assessment. Participants with hepatitis C must have either completed a course of treatment with direct antiviral therapy and had a 12-week treatment-free follow-up or be expected to remain untreated during the duration of this study):
 - i. Prior liver biopsy demonstrating cirrhosis
 - ii. FibroScan performed with an interpretable score > 12.5 kPa within 5 years of Visit 1 (screening)
 - iii. A FibroTest[®] (FibroSure[®]) with Fibrosis Score > 0.75 performed within 5 years of Visit 1 and an APRI of > 2 at Visit 1 (screening). APRI formula: $AST \div \text{laboratory upper limit of normal for } AST \times 100 \div (\text{platelet count} \div 100)$ (APRI calculation to be provided by the central laboratory)
 - iv. Prior imaging study with evidence of cirrhosis and an APRI of > 2 at Visit 1 (screening)
 - v. Prior imaging study with evidence of cirrhosis with splenomegaly and platelet count $< 120,000/\mu\text{L}$ at Visit 1 (screening)
 - c. Confirmed diagnosis of COPD with spirometric data in the preceding 5 years showing post-bronchodilator FEV₁ over FVC ratio (FEV₁/FVC) < 0.7 , and FEV₁ $\geq 30\%$ predicted, corresponding to spirometric GOLD Stage 1 to 3 by severity assessment. For otherwise eligible individuals with a clinical history of COPD who do not have spirometry data from the preceding 5 years, spirometry can be performed at visit 1 during the screening process by adequately trained personnel according to accepted guidelines
 - d. Confirmed diagnosis of mild or moderate persistent asthma with documented reversible airflow obstruction on spirometry consistent with guidelines for the diagnosis of asthma performed within 5 years prior to visit 1, and receipt of guideline-directed therapy for mild-to-moderate asthma. For otherwise eligible individuals with a clinical history of asthma who are receiving guideline-directed therapy for mild-to-moderate asthma but do not have spirometry data from the previous 5 years, spirometry can be performed at visit 1 during the screening process by adequately trained personnel according to accepted guidelines for assessing reversibility. Inhaled bronchodilator and/or inhaled steroid therapy should be withheld prior to spirometry for a “wash-out” as per recommended guidelines
 - e. Confirmed diagnosis of chronic heart disease due to 1 of the following conditions documented within the past 5 years. (Note: participants must have NYHA heart failure Class 1 to 3 at visit 1 [screening] and receive guideline-directed oral heart failure treatment):
 - i. Heart failure with reduced EF: TTE or TEE with left ventricular EF $< 40\%$
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- ii. Heart failure with preserved EF as diagnosed by a cardiologist based on clinical signs and symptoms, a TTE/TEE with left ventricular EF $\geq 50\%$, and either 1) plasma BNP >100 pg/mL or NT-proBNP >300 pg/mL or 2) at least 1 prior hospitalization or emergency room visit for heart failure
 - iii. Non-cyanotic congenital heart disease
 - f. Current smoker who has smoked at least 100 cigarettes during lifetime, is currently smoking every day or most days of the week, and is not currently receiving smoking cessation therapy at visit 1 (screening) or planning to receive therapy during the study
 - g. Based on the known association of alcohol abuse/misuse with increased morbidity and mortality of pneumococcal disease⁴⁰⁻⁴³, all participants completed an AUDIT-C at screening. An AUDIT-C score of ≥ 5 identified individuals with potentially harmful alcohol use and counted as an additional risk factor for stratification purposes⁴⁴
 3. Receiving stable medical management for the conditions listed in Inclusion Criterion 1a–f, if applicable, for at least 3 months with no anticipated major change expected for the duration of the study
 4. A female participant is eligible to participate if she is not pregnant, not breastfeeding, and at least 1 of the following conditions applies:
 - a. Not a WOCBP

OR

 - b. A WOCBP who agrees to use contraceptive methods during the treatment period and for at least 6 weeks after the last dose of study intervention
 5. The participant provides written informed consent for the study. The participant may also provide consent for future biomedical research. However, the participant may participate in the main study without participating in future biomedical research. Native American participants enrolled via the CAIH will not participate in future biomedical research

Exclusion Criteria

1. History of active hepatitis with elevation in pre-treatment aspartate transaminase or alanine transaminase values >5 times the upper limit of normal within 3 months of visit 1 (screening)
 2. History of diabetic ketoacidosis or >1 episode of severe, symptomatic hypoglycemia within 3 months of visit 1 (screening)
 3. Myocardial infarction, acute coronary syndrome, transient ischemic attack, or ischemic or hemorrhagic stroke within 3 months of visit 1 (screening)
 4. History of severe pulmonary hypertension with World Health Organization functional class ≥ 3 , or history of Eisenmenger syndrome
 5. History of invasive pneumococcal disease (positive blood culture, positive cerebrospinal fluid culture, or positive culture at another sterile site) or known history of other culture-positive pneumococcal disease within 3 years of visit 2 (Day 1)
 6. Known hypersensitivity to any component of pneumococcal polysaccharide vaccine, pneumococcal conjugate vaccine, or any diphtheria toxoid-containing vaccine
 7. Known or suspected impairment of immunological function including, but not limited to a history of congenital or acquired immunodeficiency, documented HIV infection, functional or anatomic asplenia, or history of autoimmune disease
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8. History of malignancy ≤ 5 years prior to signing informed consent (including hepatocellular carcinoma), except for adequately treated basal cell or squamous cell skin cancer or *in situ* cervical cancer
 9. History of Stage 4 or 5 chronic kidney disease (glomerular filtration rate < 30 mL/min/1.73 m²) or nephrotic syndrome
 10. History of alcohol withdrawal or alcohol withdrawal seizure in the past 12 months
 11. History of coagulation disorder contraindicating intramuscular vaccinations
 12. Recent febrile illness (defined as oral or tympanic temperature ≥ 100.4 °F [≥ 38.0 °C]; axillary or temporal temperature ≥ 99.4 °F [≥ 37.4 °C]; or rectal temperature ≥ 101.4 °F [≥ 38.6 °C]) or received antibiotic therapy for any acute illness occurring within 72 hours before receipt of study vaccine
 13. History of hospitalization within 3 months of visit 1 (screening)
 14. Planned organ transplantation (heart, liver, lung, kidney, or pancreas) or other planned major surgery during the duration of this study
 15. Expected survival for less than 1 year according to the investigator's judgment
 16. A woman of childbearing potential who has a positive urine or serum pregnancy test before the first vaccination at visit 2 (Day 1)
 17. Prior administration of any pneumococcal vaccine or expected to receive any pneumococcal vaccine during the study outside of the protocol
 18. Received systemic corticosteroids (prednisone equivalent of ≥ 20 mg/day) for ≥ 14 consecutive days and has not completed intervention at least 30 days before study entry
 19. Received systemic corticosteroids exceeding physiologic replacement doses (approximately 5 mg/day prednisone equivalent) within 14 days before vaccination. (Note: topical, ophthalmic, intra-articular or soft tissue [eg, bursa, tendon steroid injections], and inhaled/nebulized steroids are permitted)
 20. Receiving immunosuppressive therapy, including chemotherapeutic agents used to treat cancer or other conditions, and interventions associated with organ or bone marrow transplantation, or autoimmune disease
 21. Receiving immunomodulatory therapy with biological agents such as monoclonal antibodies directed against interleukin or cytokine pathways that could potentially interfere with immunogenicity assessment
 22. Received any licensed, non-live vaccine within the 14 days before receipt of any study vaccine or is scheduled to receive any licensed, non-live vaccine within 30 days following receipt of any study vaccine. Exception: inactivated influenza vaccine may be administered but must be given at least 7 days before receipt of any study vaccine or at least 15 days after receipt of any study vaccine[†]
 23. Received any live vaccine within 30 days before receipt of any study vaccine or is scheduled to receive any live vaccine within 30 days following receipt of any study vaccine
 24. Received a blood transfusion or blood products, including immunoglobulins, within the 6 months before receipt of study vaccine or is scheduled to receive a blood transfusion or blood product within 30 days of receipt of study vaccine. Autologous blood transfusions are not considered an exclusion criterion
 25. Receiving chronic home oxygen therapy
 26. Is currently participating in, or has participated in, an interventional clinical study with an investigational compound or device within 2 months of participating in this current study
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27. Is, at the time of signing informed consent, a user of recreational or illicit drugs or has had a recent history (within the last year) of drug abuse or dependence as assessed by the study investigator
 28. Has history or current evidence of any condition, therapy, laboratory abnormality, or other circumstance that might expose the participant to risk by participating in the study, confound the results of the study, or interfere with the participant's participation for the full duration of the study
 29. Is, or has, an immediate family member (eg, spouse, parent/legal guardian, sibling, or child) who is investigational site or Sponsor staff directly involved with this study
 30. Diabetes mellitus with hemoglobin A1c $\geq 10\%$ at visit 1 (screening)
 31. Chronic liver disease with Child-Pugh Class B or C cirrhosis at visit 1 (screening)
 32. Chronic lung disease with chronic obstructive pulmonary disease GOLD Stage 4 or severe persistent asthma at visit 1 (screening)
 33. Chronic heart disease with New York Heart Association heart failure Class 4 at visit 1 (screening)

APRI: AST-to-platelet ratio index; AST: aspartate aminotransferase; AUDIT-C: Alcohol Use Disorder Identification Test – Consumption; BNP: brain natriuretic peptide; CAIH: Center for American Indian Health; COPD: chronic obstructive pulmonary disease; EF: ejection fraction; FEV₁: forced expiratory volume in 1 second; FVC: forced vital capacity; GOLD: Global Initiative for Chronic Obstructive Lung Disease; HIV: human immunodeficiency virus; NT-proBNP: N-terminal pro B-type natriuretic peptide; NYHA: New York Heart Association; TEE: transesophageal echocardiography; TTE: transthoracic echocardiography; WOCBP: woman of childbearing potential.

†If the participant meets these exclusion criteria at screening, the Day 1 visit may be rescheduled for a time when these criteria are not met.

Supplemental Table 2. Summary of OPA GMTs for participants with a single risk factor

Pneumococcal Serotype		V114 (N = 620)			PCV13 (N = 207)		
13 Shared Serotypes	Timepoint	n	Observed GMT	95% CI [†]	n	Observed GMT	95% CI [†]
1	Day 1	597	7.6	7.0–8.3	200	8.2	7.0–9.6
	Day 30	552	327.7	287.8–373.1	185	367.1	286.3–470.9
	Month 6	502	100.7	87.4–115.9	169	123.2	93.8–161.9
	Month 7	445	288.8	254.8–327.3	150	249.6	199.9–311.7
3	Day 1	593	23.4	21.1–25.8	197	20.0	17.2–23.3
	Day 30	544	208.8	189.1–230.6	184	157.4	131.6–188.2
	Month 6	494	114.3	102.8–127.2	167	82.7	68.1–100.4
	Month 7	444	224.1	201.8–248.9	149	222.5	186.0–266.0
4	Day 1	590	56.2	49.3–64.0	196	46.7	37.7–57.9
	Day 30	550	1594.1	1434.1–1772.1	185	2831.8	2418.7–3315.4
	Month 6	503	722.2	644.7–809.0	169	1081.8	882.9–1325.5
	Month 7	445	1768.5	1607.5–1945.6	152	1956.9	1695.5–2258.7
5	Day 1	598	19.6	18.2–21.1	200	19.9	17.5–22.7
	Day 30	552	618.5	545.4–701.4	186	813.9	643.0–1030.1

	Month 6	502	221.6	194.0–253.2	170	310.7	238.5–404.9
	Month 7	446	637.3	567.6–715.5	152	696.7	560.7–865.7
6A	Day 1	552	435.1	388.1–487.8	181	345.2	285.7–417.1
	Day 30	544	12,773.3	11,487.3–14,203.2	182	12,514.6	10,248.3–15,282.0
	Month 6	493	5689.3	5124.5–6316.3	167	4896.7	4024.3–5958.2
	Month 7	439	6008.9	5422.0–6659.3	149	6003.8	4947.6–7285.5
6B	Day 1	589	246.1	208.7–290.1	194	200.3	150.9–265.9
	Day 30	548	10,159.2	9270.5–11,133.1	185	6990.7	5688.9–8590.5
	Month 6	501	4657.8	4211.4–5151.5	168	3109.8	2479.7–3900.1
	Month 7	445	5207.4	4743.6–5716.6	152	4259.2	3550.5–5109.3
7F	Day 1	559	601.1	519.8–695.2	192	503.4	390.6–648.9
	Day 30	552	5824.1	5333.2–6360.3	185	7574.3	6544.0–8766.7
	Month 6	501	3075.8	2828.8–3344.2	170	4190.4	3621.3–4848.9
	Month 7	445	5584.5	5125.1–6085.1	152	5716.9	4965.6–6581.9
9V	Day 1	588	504.9	450.5–565.9	196	483.8	397.6–588.6
	Day 30	552	3455.9	3149.4–3792.4	186	4279.1	3681.6–4973.4
	Month 6	499	1814.7	1653.0–1992.3	169	2188.5	1832.6–2613.4
	Month 7	444	3015.1	2741.3–3316.3	151	3472.4	2941.2–4099.6
14	Day 1	583	548.8	478.1–629.9	197	514.4	405.8–652.1

	Day 30	549	5120.4	4628.1–5665.1	186	5893.2	5014.8–6925.5
	Month 6	503	2726.8	2454.4–3029.5	168	3419.0	2831.2–4128.8
	Month 7	445	5299.8	4819.8–5827.7	152	5111.5	4301.7–6073.8
18C	Day 1	586	192.0	170.8–215.8	195	175.2	144.1–213.0
	Day 30	549	5840.7	5322.5–6409.3	186	3215.0	2696.2–3833.6
	Month 6	502	2540.0	2311.4–2791.3	169	1596.2	1334.8–1908.9
	Month 7	444	3225.2	2959.6–3514.6	152	2228.6	1910.0–2600.4
19A	Day 1	582	388.2	341.2–441.6	194	331.9	265.8–414.4
	Day 30	551	5508.5	5022.7–6041.4	186	6354.1	5340.4–7560.3
	Month 6	502	2648.6	2417.6–2901.7	170	2867.0	2426.9–3386.9
	Month 7	441	4521.1	4102.2–4982.8	152	4852.9	4185.2–5627.1
19F	Day 1	591	355.1	317.1–397.6	195	327.9	269.4–399.1
	Day 30	552	3327.9	3045.9–3636.1	186	3328.0	2889.5–3833.0
	Month 6	502	1704.8	1557.2–1866.4	169	1838.2	1579.8–2139.0
	Month 7	446	3343.9	3083.9–3626.0	152	3004.0	2592.6–3480.8
23F	Day 1	563	162.4	138.5–190.5	183	142.0	107.6–187.5
	Day 30	550	4911.5	4372.5–5516.8	184	3731.5	3017.3–4614.9
	Month 6	502	2424.7	2145.0–2740.8	169	1963.5	1569.7–2456.0
	Month 7	445	3022.2	2703.2–3378.8	152	2656.3	2138.6–3299.4

2 Additional Serotypes in V114

22F	Day 1	535	204.0	164.9–252.3	182	128.8	89.5–185.4
	Day 30	543	4498.2	4049.2–4996.9	171	210.0	142.5–309.4
	Month 6	496	2188.9	1981.0–2418.7	151	283.3	189.2–424.4
	Month 7	441	4000.4	3630.3–4408.2	151	4386.8	3426.0–5617.0
33F	Day 1	589	2086.4	1863.4–2336.0	197	1879.2	1503.4–2349.0
	Day 30	550	12,608.2	11,452.0–13,881.1	183	1874.0	1473.0–2384.3
	Month 6	502	6988.8	6364.6–7674.1	167	1962.6	1559.7–2469.4
	Month 7	441	11,884.2	10,700.2–13,199.2	151	18,172.6	14,759.9–22,374.2

N is the number of participants randomized and vaccinated; n is the number of participants contributing to the analysis. Per protocol, Day 1 is pre-vaccination with PCV, Day 30 is 30 days following vaccination with PCV, Month 6 is 6 months following vaccination with PCV and pre-vaccination with PPSV23, and Month 7 is 30 days following vaccination with PPSV23. Pre-defined risk factors include chronic liver, lung, and heart disease, diabetes mellitus, tobacco use, and alcohol consumption. The risk factor of alcohol consumption was defined as the AUDIT-C score ≥ 5 .

AUDIT-C: Alcohol Use Disorders Identification Test – Consumption; CAIH: Center for American Indian Health; CI: confidence interval; GMT: geometric mean titer (1/dilution); OPA: opsonophagocytic activity; PCV: pneumococcal conjugate vaccine; PCV13: 13-valent pneumococcal conjugate vaccine; PPSV23: 23-valent pneumococcal polysaccharide vaccine; V114: 15-valent pneumococcal conjugate vaccine.

[†]The within-group 95% CIs are obtained by exponentiating the CIs of the mean of the natural log values based on the t-distribution.

Supplemental Table 3. Summary of OPA GMTs for participants with ≥ 2 risk factors

Pneumococcal Serotype		V114 (N = 228)			PCV13 (N = 76)		
13 Shared Serotypes	Timepoint	n	Observed GMT	95% CI [†]	n	Observed GMT	95% CI [†]
1	Day 1	221	7.7	6.6–8.9	74	7.2	5.6–9.2
	Day 30	201	292.0	237.5–359.1	69	304.2	214.9–430.5
	Month 6	195	91.1	72.5–114.4	63	102.4	66.8–156.9
	Month 7	159	284.8	235.0–345.1	54	199.1	138.6–286.1
3	Day 1	221	24.9	21.0–29.6	74	20.3	15.8–26.1
	Day 30	197	234.5	194.1–283.4	69	129.2	91.1–183.2
	Month 6	191	108.6	90.5–130.3	62	56.6	41.1–78.0
	Month 7	158	215.3	178.9–259.0	54	174.7	123.9–246.3
4	Day 1	219	49.8	40.8–60.7	74	59.0	41.1–84.9
	Day 30	201	1487.6	1239.0–1786.0	69	2449.2	1845.4–3250.5
	Month 6	194	595.1	484.2–731.3	63	1147.4	826.8–1592.4
	Month 7	160	1619.3	1348.6–1944.4	54	1739.6	1261.0–2399.8
5	Day 1	221	17.5	15.8–19.3	74	17.5	14.6–21.1
	Day 30	201	582.2	469.5–722.0	69	583.6	382.9–889.5

	Month 6	195	224.9	177.4–285.1	63	183.9	119.2–283.8
	Month 7	160	523.9	418.9–655.1	54	429.9	281.8–655.9
6A	Day 1	200	457.7	381.9–548.5	70	388.2	286.1–526.7
	Day 30	199	11,924.9	9847.1–14,441.2	67	9968.8	6971.9–14,254.0
	Month 6	190	4999.5	4079.1–6127.6	62	4533.4	3358.5–6119.3
	Month 7	159	4430.9	3606.4–5444.0	52	5792.7	4126.9–8131.0
6B	Day 1	209	247.4	189.8–322.6	73	291.3	187.4–452.8
	Day 30	201	9053.1	7673.5–10,680.9	69	5545.2	4001.0–7685.3
	Month 6	195	4101.6	3457.8–4865.3	63	3072.9	2222.8–4248.1
	Month 7	160	4563.4	3848.2–5411.6	54	4300.2	3184.3–5807.1
7F	Day 1	208	632.1	498.8–801.0	69	719.3	463.4–1116.4
	Day 30	201	6399.7	5561.5–7364.1	69	7622.9	5546.4–10,476.9
	Month 6	194	3167.2	2772.5–3617.9	63	3902.8	3005.6–5067.7
	Month 7	160	6406.9	5513.3–7445.3	54	6333.1	4741.2–8459.6
9V	Day 1	218	453.7	379.1–543.0	73	687.8	497.8–950.2
	Day 30	199	3563.8	3069.6–4137.5	69	3663.4	2859.4–4693.4
	Month 6	193	1762.8	1498.0–2074.5	62	1899.2	1393.3–2588.8
	Month 7	160	2706.8	2270.2–3227.4	54	2934.6	2244.7–3836.5
14	Day 1	218	431.2	340.1–546.6	72	628.4	421.4–936.9

	Day 30	201	4326.5	3625.3–5163.3	69	5669.1	4281.5–7506.4
	Month 6	195	2661.3	2261.4–3131.9	63	3443.9	2561.8–4629.8
	Month 7	160	4511.8	3846.2–5292.6	54	4829.6	3481.6–6699.5
18C	Day 1	210	185.4	152.7–225.1	72	149.9	108.5–207.1
	Day 30	199	5836.2	4976.9–6843.9	69	2588.9	1934.4–3464.8
	Month 6	194	2593.3	2194.8–3064.2	63	1058.3	804.3–1392.5
	Month 7	160	3063.5	2614.1–3590.1	53	1923.3	1462.9–2528.7
19A	Day 1	217	325.3	261.0–405.4	70	408.5	282.9–589.9
	Day 30	201	5016.7	4257.1–5911.9	69	5287.3	4097.2–6823.1
	Month 6	194	2353.2	1998.1–2771.3	63	2687.1	2159.2–3344.2
	Month 7	158	4223.0	3466.0–5145.3	54	4251.1	3193.8–5658.5
19F	Day 1	213	317.7	264.7–381.2	72	306.7	220.0–427.7
	Day 30	200	2954.9	2555.6–3416.6	69	2698.5	2119.0–3436.5
	Month 6	195	1532.0	1300.0–1805.5	63	1432.9	1075.3–1909.3
	Month 7	160	2753.3	2339.8–3239.9	53	3616.2	2886.6–4530.2
23F	Day 1	211	124.8	97.6–159.7	71	201.8	130.9–311.2
	Day 30	201	4428.2	3624.7–5409.9	69	3236.3	2189.5–4783.6
	Month 6	195	2163.7	1768.6–2646.9	63	2094.7	1432.8–3062.3
	Month 7	156	2677.4	2229.1–3215.7	54	2554.7	1761.1–3705.9

2 Additional Serotypes in V114

22F	Day 1	199	226.3	161.0–318.3	72	211.0	111.7–398.5
	Day 30	197	3645.7	3069.2–4330.5	65	305.0	160.2–580.9
	Month 6	192	1696.2	1411.0–2039.2	58	295.2	146.7–594.0
	Month 7	160	3108.8	2669.8–3619.9	53	3707.4	2218.8–6194.6
33F	Day 1	215	1630.6	1320.3–2013.9	72	2544.0	1816.2–3563.4
	Day 30	201	9240.5	7778.9–10,976.8	67	1854.6	1165.9–2949.9
	Month 6	194	5632.0	4766.5–6654.8	63	2022.1	1375.3–2973.0
	Month 7	160	7708.6	6353.6–9352.5	54	14,364.8	9477.2–21,773.1

N is the number of participants randomized and vaccinated; n is the number of participants contributing to the analysis. Per protocol, Day 1 is pre-vaccination with PCV, Day 30 is 30 days following vaccination with PCV, Month 6 is 6 months following vaccination with PCV and pre-vaccination with PPSV23, and Month 7 is 30 days following vaccination with PPSV23. Pre-defined risk factors include chronic liver, lung and heart disease, diabetes mellitus, tobacco use, and alcohol consumption. The risk factor of alcohol consumption was defined as the AUDIT-C score ≥ 5 .

AUDIT-C: Alcohol Use Disorders Identification Test – Consumption; CI: confidence interval; GMT: geometric mean titer (1/dilution); OPA: opsonophagocytic activity; PCV: pneumococcal conjugate vaccine; PCV13: 13-valent pneumococcal conjugate vaccine; PPSV23: 23-valent pneumococcal polysaccharide vaccine; V114: 15-valent pneumococcal conjugate vaccine.

[†]The within-group 95% CIs are obtained by exponentiating the CIs of the mean of the natural log values based on the t-distribution.

Supplemental Table 4. Summary of IgG GMCs for participants with a single risk factor

Pneumococcal Serotype	Timepoint	V114 (N = 620)			PCV13 (N = 207)		
		n	Observed GMC	95% CI [†]	n	Observed GMC	95% CI [†]
1	Day 1	599	0.31	0.28–0.34	201	0.32	0.27–0.37
	Day 30	553	4.01	3.61–4.46	186	4.86	4.02–5.89
	Month 6	503	1.75	1.56–1.95	170	2.52	2.04–3.11
	Month 7	446	3.27	2.97–3.60	152	3.82	3.21–4.55
3	Day 1	599	0.18	0.16–0.20	201	0.16	0.14–0.19
	Day 30	551	0.85	0.78–0.93	186	0.68	0.58–0.80
	Month 6	501	0.47	0.42–0.51	170	0.38	0.32–0.46
	Month 7	446	0.74	0.68–0.81	152	0.76	0.65–0.90
4	Day 1	598	0.20	0.19–0.22	201	0.16	0.14–0.19
	Day 30	549	1.85	1.66–2.06	186	3.07	2.52–3.73
	Month 6	503	0.88	0.79–0.98	170	1.17	0.95–1.44
	Month 7	446	1.53	1.38–1.70	151	1.97	1.63–2.37
5	Day 1	599	0.81	0.76–0.87	201	0.86	0.76–0.97
	Day 30	553	3.63	3.23–4.08	186	4.95	3.93–6.24

	Month 6	503	2.02	1.82–2.25	170	2.92	2.37–3.61
	Month 7	446	3.57	3.19–4.00	152	4.69	3.84–5.72
6A	Day 1	599	0.35	0.31–0.39	201	0.28	0.23–0.34
	Day 30	553	12.47	10.89–14.27	186	10.65	8.33–13.63
	Month 6	503	5.14	4.51–5.86	170	4.57	3.57–5.85
	Month 7	445	5.00	4.37–5.72	152	5.00	3.92–6.39
6B	Day 1	599	0.45	0.40–0.50	201	0.37	0.31–0.44
	Day 30	553	18.02	15.86–20.48	186	9.97	7.75–12.83
	Month 6	503	7.25	6.40–8.22	170	4.56	3.52–5.90
	Month 7	446	7.67	6.75–8.72	152	5.81	4.55–7.40
7F	Day 1	599	0.44	0.40–0.48	201	0.39	0.33–0.47
	Day 30	553	5.73	5.12–6.41	186	7.38	6.08–8.94
	Month 6	503	2.64	2.35–2.96	170	3.21	2.61–3.95
	Month 7	446	4.19	3.75–4.67	152	4.64	3.83–5.63
9V	Day 1	599	0.43	0.39–0.47	201	0.38	0.32–0.44
	Day 30	553	4.75	4.26–5.29	186	5.25	4.33–6.36
	Month 6	502	2.40	2.15–2.67	170	2.56	2.09–3.13
	Month 7	446	3.43	3.09–3.81	152	3.76	3.10–4.55
14	Day 1	599	1.59	1.40–1.81	201	1.49	1.19–1.86

	Day 30	553	16.77	14.69–19.15	186	17.35	14.04–21.44
	Month 6	502	10.05	8.80–11.47	170	11.07	8.98–13.66
	Month 7	446	15.66	13.84–17.71	152	15.43	12.53–19.00
18C	Day 1	599	0.52	0.47–0.57	201	0.44	0.37–0.52
	Day 30	553	15.60	13.96–17.44	186	9.38	7.62–11.54
	Month 6	503	6.36	5.67–7.12	170	3.86	3.16–4.73
	Month 7	446	6.36	5.66–7.14	152	4.27	3.53–5.16
19A	Day 1	599	1.71	1.57–1.86	201	1.36	1.18–1.58
	Day 30	553	18.61	16.77–20.65	186	19.19	15.51–23.75
	Month 6	502	8.46	7.66–9.34	170	8.16	6.58–10.12
	Month 7	446	11.61	10.47–12.89	152	11.38	9.30–13.91
19F	Day 1	599	0.91	0.82–1.01	201	0.73	0.61–0.87
	Day 30	552	12.92	11.55–14.45	186	11.39	9.29–13.96
	Month 6	503	5.47	4.90–6.10	170	4.88	3.97–6.00
	Month 7	446	8.77	7.94–9.69	152	8.23	6.82–9.94
23F	Day 1	599	0.49	0.44–0.55	201	0.50	0.42–0.60
	Day 30	552	14.06	12.46–15.86	186	10.63	8.59–13.16
	Month 6	502	5.55	4.93–6.25	170	4.71	3.77–5.90
	Month 7	446	5.90	5.23–6.64	152	5.40	4.36–6.68

2 Additional Serotypes in V114

22F	Day 1	599	0.45	0.40–0.51	201	0.41	0.34–0.50
	Day 30	553	6.49	5.81–7.24	186	0.43	0.35–0.52
	Month 6	503	2.83	2.55–3.15	170	0.45	0.36–0.55
	Month 7	446	5.04	4.55–5.59	152	5.91	4.67–7.47
33F	Day 1	599	0.95	0.86–1.05	201	0.90	0.75–1.07
	Day 30	553	7.94	7.06–8.93	185	0.89	0.75–1.06
	Month 6	503	4.12	3.67–4.64	170	0.88	0.73–1.06
	Month 7	446	6.28	5.59–7.07	152	9.74	7.71–12.30

N is the number of participants randomized and vaccinated; n is the number of participants contributing to the analysis. Per protocol, Day 1 is pre-vaccination with PCV, Day 30 is 30 days following vaccination with PCV, Month 6 is 6 months following vaccination with PCV and pre-vaccination with PPSV23, and Month 7 is 30 days following vaccination with PPSV23. Pre-defined risk factors include chronic liver, lung, and heart disease, diabetes mellitus, tobacco use, and alcohol consumption. The risk factor of alcohol consumption was defined as the AUDIT-C score ≥ 5 .

AUDIT-C: Alcohol Use Disorders Identification Test – Consumption; CAIH: Center for American Indian Health; CI: confidence interval; GMC: geometric mean concentration; IgG: immunoglobulin G; PCV: pneumococcal conjugate vaccine; PCV13: 13-valent pneumococcal conjugate vaccine; PPSV23: 23-valent pneumococcal polysaccharide vaccine; V114: 15-valent pneumococcal conjugate vaccine.

[†]The within-group 95% CIs are obtained by exponentiating the CIs of the mean of the natural log values based on the t-distribution.

Supplemental Table 5. Summary of IgG GMCs for participants with ≥ 2 risk factors

Pneumococcal Serotype	Timepoint	V114 (N = 228)			PCV13 (N = 76)		
		n	Observed GMC	95% CI [†]	n	Observed GMC	95% CI [†]
1	Day 1	221	0.30	0.26–0.34	74	0.24	0.19–0.31
	Day 30	201	3.77	3.19–4.45	69	4.62	3.45–6.19
	Month 6	195	1.61	1.37–1.91	63	2.29	1.66–3.16
	Month 7	160	3.13	2.66–3.68	54	3.07	2.31–4.08
3	Day 1	221	0.18	0.15–0.21	74	0.14	0.11–0.18
	Day 30	201	0.87	0.74–1.03	69	0.58	0.46–0.73
	Month 6	195	0.47	0.40–0.55	63	0.32	0.25–0.40
	Month 7	160	0.74	0.63–0.86	54	0.66	0.51–0.86
4	Day 1	220	0.20	0.17–0.23	74	0.16	0.13–0.20
	Day 30	201	1.72	1.42–2.10	69	2.84	1.99–4.05
	Month 6	195	0.87	0.73–1.05	63	1.34	0.94–1.91
	Month 7	160	1.59	1.32–1.93	54	2.08	1.50–2.89
5	Day 1	221	0.90	0.81–1.00	74	0.93	0.74–1.17
	Day 30	201	3.62	2.97–4.40	69	4.20	2.85–6.19

	Month 6	195	2.18	1.82–2.61	63	2.33	1.65–3.28
	Month 7	160	4.07	3.36–4.93	54	3.08	2.15–4.40
6A	Day 1	221	0.32	0.27–0.38	74	0.38	0.27–0.55
	Day 30	201	11.27	8.94–14.20	69	9.59	6.00–15.31
	Month 6	195	4.16	3.32–5.20	63	4.54	2.85–7.23
	Month 7	160	3.96	3.12–5.02	54	5.17	3.20–8.36
6B	Day 1	220	0.43	0.36–0.52	74	0.39	0.29–0.52
	Day 30	201	16.00	12.55–20.41	69	10.31	6.67–15.92
	Month 6	195	6.34	5.00–8.04	63	4.69	3.03–7.26
	Month 7	160	6.67	5.20–8.54	54	6.12	4.05–9.24
7F	Day 1	221	0.48	0.41–0.57	74	0.49	0.38–0.64
	Day 30	201	6.51	5.43–7.81	69	8.92	6.40–12.43
	Month 6	195	2.88	2.40–3.44	63	4.33	3.13–5.99
	Month 7	160	5.01	4.18–5.99	54	5.09	3.68–7.04
9V	Day 1	221	0.41	0.35–0.48	74	0.45	0.33–0.60
	Day 30	201	4.88	4.09–5.83	69	5.46	4.04–7.38
	Month 6	194	2.49	2.12–2.93	63	3.06	2.24–4.18
	Month 7	160	3.92	3.34–4.60	54	4.21	3.18–5.56
14	Day 1	221	1.58	1.27–1.97	74	1.81	1.19–2.74

	Day 30	201	16.77	13.55–20.75	69	22.12	16.04–30.50
	Month 6	195	10.20	8.39–12.40	63	13.68	9.58–19.54
	Month 7	160	16.40	13.78–19.54	54	21.45	15.66–29.37
18C	Day 1	221	0.52	0.45–0.62	74	0.55	0.41–0.73
	Day 30	201	15.26	12.87–18.11	69	9.32	6.81–12.76
	Month 6	195	6.16	5.19–7.31	63	4.64	3.53–6.10
	Month 7	160	5.97	4.98–7.16	54	5.10	3.93–6.63
19A	Day 1	221	1.44	1.24–1.68	74	1.43	1.10–1.87
	Day 30	201	15.24	12.80–18.15	69	19.91	14.49–27.36
	Month 6	195	7.29	6.18–8.61	63	8.81	6.55–11.85
	Month 7	160	9.59	8.08–11.38	54	12.35	9.35–16.32
19F	Day 1	221	0.87	0.73–1.03	74	0.81	0.62–1.06
	Day 30	201	10.56	8.84–12.62	69	12.25	8.64–17.36
	Month 6	195	5.07	4.28–6.00	63	5.24	3.69–7.46
	Month 7	160	8.09	6.84–9.56	54	8.92	6.69–11.88
23F	Day 1	221	0.49	0.41–0.58	74	0.38	0.28–0.52
	Day 30	201	12.58	10.39–15.24	69	7.72	5.05–11.81
	Month 6	195	5.02	4.19–6.01	63	3.11	2.02–4.78
	Month 7	160	5.77	4.77–6.97	54	3.56	2.29–5.55

2 Additional Serotypes in V114

22F	Day 1	221	0.41	0.34–0.49	74	0.36	0.25–0.50
	Day 30	201	5.39	4.45–6.54	68	0.41	0.30–0.57
	Month 6	195	2.52	2.08–3.05	63	0.38	0.27–0.53
	Month 7	160	4.33	3.59–5.21	54	2.81	1.92–4.10
33F	Day 1	221	0.89	0.76–1.05	74	0.71	0.52–0.97
	Day 30	201	7.92	6.52–9.62	69	0.74	0.56–0.98
	Month 6	195	3.99	3.31–4.80	63	0.70	0.51–0.96
	Month 7	160	6.03	5.03–7.23	54	7.02	4.71–10.46

N is the number of participants randomized and vaccinated; n is the number of participants contributing to the analysis. Per protocol, Day 1 is pre-vaccination with PCV, Day 30 is 30 days following vaccination with PCV, Month 6 is 6 months following vaccination with PCV and pre-vaccination with PPSV23, and Month 7 is 30 days following vaccination with PPSV23. Pre-defined risk factors include chronic liver, lung, and heart disease, diabetes mellitus, tobacco use, and alcohol consumption. The risk factor of alcohol consumption was defined as the AUDIT-C score ≥ 5 .

AUDIT-C: Alcohol Use Disorders Identification Test – Consumption; CI: confidence interval; GMC: geometric mean concentration; IgG: immunoglobulin G; PCV: pneumococcal conjugate vaccine; PCV13: 13-valent pneumococcal conjugate vaccine; PPSV23: 23-valent pneumococcal polysaccharide vaccine; V114: 15-valent pneumococcal conjugate vaccine.

[†]The within-group 95% CIs are obtained by exponentiating the CIs of the mean of the natural log values based on the t-distribution.

Supplemental Table 6. Summary of OPA antibody responses for participants with one risk factor

Pneumococcal Serotype	Endpoint	Timepoint	V114 N = 620			PCV13 N = 207		
			n	Observed Response	95% CI [†]	n	Observed Response	95% CI [†]
13 Shared Serotypes								
1	GMT	Day 1	597	7.6	7.0–8.3	200	8.2	7.0–9.6
		Day 30	552	327.7	287.8–373.1	185	367.1	286.3–470.9
		Month 6	502	100.7	87.4–115.9	169	123.2	93.8–161.9
		Month 7	445	288.8	254.8–327.3	150	249.6	199.9–311.7
	GMFR	Day 1 to Day 30	540	26.4	23.0–30.2	181	26.6	20.9–33.7
		Day 1 to Month 7	435	23.7	20.8–27.0	148	18.3	14.7–22.7
		Month 6 to Month 7	443	2.8	2.5–3.1	150	1.7	1.5–2.0
	% ≥4-fold rise	Day 1 to Day 30	540	85.7% (463/540)	82.5–88.6	181	83.4% (151/181)	77.2–88.5
		Day 1 to Month 7	435	87.4% (380/435)	83.9–90.3	148	85.8% (127/148)	79.1–91.0
		Month 6 to Month 7	443	34.1% (151/443)	29.7–38.7	150	17.3% (26/150)	11.6–24.4
3	GMT	Day 1	593	23.4	21.1–25.8	197	20.0	17.2–23.3
		Day 30	544	208.8	189.1–230.6	184	157.4	131.6–188.2
		Month 6	494	114.3	102.8–127.2	167	82.7	68.1–100.4
		Month 7	444	224.1	201.8–248.9	149	222.5	186.0–266.0
	GMFR	Day 1 to Day 30	529	6.2	5.6–6.9	178	5.3	4.5–6.2
		Day 1 to Month 7	433	6.5	5.8–7.2	145	7.2	6.1–8.6
		Month 6 to Month 7	437	2.0	1.8–2.1	147	2.5	2.1–2.8
	% ≥4-fold rise	Day 1 to Day 30	529	65.0% (344/529)	60.8–69.1	178	60.1% (107/178)	52.5–67.4
		Day 1 to Month 7	433	68.8% (298/433)	64.2–73.2	145	73.8% (107/145)	65.8–80.7

4	GMT	Month 6 to Month 7	437	19.0% (83/437)	15.4–23.0	147	26.5% (39/147)	19.6–34.4
		Day 1	590	56.2	49.3–64.0	196	46.7	37.7–57.9
		Day 30	550	1594.1	1434.1–1772.1	185	2831.8	2418.7–3315.4
		Month 6	503	722.2	644.7–809.0	169	1081.8	882.9–1325.5
	GMFR	Month 7	445	1768.5	1607.5–1945.6	152	1956.9	1695.5–2258.7
		Day 1 to Day 30	531	19.4	16.9–22.3	178	39.0	30.8–49.4
		Day 1 to Month 7	432	22.0	19.2–25.3	147	26.7	21.3–33.5
	% ≥4-fold rise	Month 6 to Month 7	444	2.5	2.2–2.8	151	1.7	1.4–2.0
		Day 1 to Day 30	531	80.0% (425/531)	76.4–83.4	178	89.3% (159/178)	83.8–93.4
		Day 1 to Month 7	432	85.0% (367/432)	81.2–88.2	147	87.1% (128/147)	80.6–92.0
5	GMT	Month 6 to Month 7	444	27.9% (124/444)	23.8–32.4	151	15.9% (24/151)	10.5–22.7
		Day 1	598	19.6	18.2–21.1	200	19.9	17.5–22.7
		Day 30	552	618.5	545.4–701.4	186	813.9	643.0–1030.1
		Month 6	502	221.6	194.0–253.2	170	310.7	238.5–404.9
	GMFR	Month 7	446	637.3	567.6–715.5	152	696.7	560.7–865.7
		Day 1 to Day 30	541	18.6	16.5–21.1	182	23.0	18.6–28.4
		Day 1 to Month 7	437	19.0	16.9–21.3	150	19.8	16.2–24.1
	% ≥4-fold rise	Month 6 to Month 7	444	2.8	2.5–3.1	152	1.9	1.6–2.3
		Day 1 to Day 30	541	85.4% (462/541)	82.1–88.3	182	85.7% (156/182)	79.8–90.5
		Day 1 to Month 7	437	87.9% (384/437)	84.4–90.8	150	87.3% (131/150)	80.9–92.2
6A	GMT	Month 6 to Month 7	444	33.6% (149/444)	29.2–38.2	152	18.4% (28/152)	12.6–25.5
		Day 1	552	435.1	388.1–487.8	181	345.2	285.7–417.1
		Day 30	544	12773.3	11487.3– 14203.2	182	12514.6	10248.3–15282.0
		Month 6	493	5689.3	5124.5–6316.3	167	4896.7	4024.3–5958.2
	GMFR	Month 7	437	6008.9	5422.0–6659.3	149	6003.8	4947.6–7285.5
		Day 1 to Day 30	493	22.0	19.2–25.1	162	25.0	19.9–31.5
		Day 1 to Month 7	398	10.1	8.9–11.4	134	12.4	9.9–15.5
	Month 6 to Month 7	431	1.0	1.0–1.1	146	1.2	1.0–1.3	

6B	% ≥4-fold rise	Day 1 to Day 30	493	86.4% (426/493)	83.1–89.3	162	88.9% (144/162)	83.0–93.3	
		Day 1 to Month 7	398	74.6% (297/398)	70.0–78.8	134	84.3% (113/134)	77.0–90.0	
	GMT	Month 6 to Month 7	431	4.4% (19/431)	2.7–6.8	146	5.5% (8/146)	2.4–10.5	
		Day 1	589	246.1	208.7–290.1	194	200.3	150.9–265.9	
		Day 30	548	10159.2	9270.5–11133.1	185	6990.7	5688.9–8590.5	
		Month 6	501	4657.8	4211.4–5151.5	168	3109.8	2479.7–3900.1	
		Month 7	445	5207.4	4743.6–5716.6	152	4259.2	3550.5–5109.3	
		GMFR	Day 1 to Day 30	530	31.5	26.8–37.1	176	27.1	20.8–35.3
			Day 1 to Month 7	429	16.3	13.9–19.2	146	16.3	12.4–21.4
			Month 6 to Month 7	444	1.1	1.0–1.2	150	1.3	1.2–1.5
% ≥4-fold rise	Day 1 to Day 30	530	83.6% (443/530)	80.2–86.6	176	86.9% (153/176)	81.0–91.5		
	Day 1 to Month 7	429	75.8% (325/429)	71.4–79.7	146	75.3% (110/146)	67.5–82.1		
7F	GMT	Month 6 to Month 7	444	4.3% (19/444)	2.6–6.6	150	7.3% (11/150)	3.7–12.7	
		Day 1	559	601.1	519.8–695.2	192	503.4	390.6–648.9	
		Day 30	552	5824.1	5333.2–6360.3	185	7574.3	6544.0–8766.7	
		Month 6	501	3075.8	2828.8–3344.2	170	4190.4	3621.3–4848.9	
		Month 7	445	5584.5	5125.1–6085.1	152	5716.9	4965.6–6581.9	
	GMFR	Day 1 to Day 30	507	8.1	7.0–9.4	175	12.4	9.6–16.0	
		Day 1 to Month 7	407	8.1	7.0–9.4	143	10.0	7.7–13.1	
		Month 6 to Month 7	442	1.9	1.7–2.0	152	1.4	1.2–1.5	
	% ≥4-fold rise	Day 1 to Day 30	507	59.4% (301/507)	55.0–63.7	175	67.4% (118/175)	59.9–74.3	
		Day 1 to Month 7	407	63.9% (260/407)	59.0–68.6	143	64.3% (92/143)	55.9–72.2	
9V	GMT	Month 6 to Month 7	442	13.1% (58/442)	10.1–16.6	152	5.3% (8/152)	2.3–10.1	
		Day 1	588	504.9	450.5–565.9	196	483.8	397.6–588.6	
		Day 30	552	3455.9	3149.4–3792.4	186	4279.1	3681.6–4973.4	
		Month 6	499	1814.7	1653.0–1992.3	169	2188.5	1832.6–2613.4	
		Month 7	444	3015.1	2741.3–3316.3	151	3472.4	2941.2–4099.6	
	GMFR	Day 1 to Day 30	531	5.7	5.1–6.4	178	7.3	6.1–8.9	
Day 1 to Month 7		426	4.9	4.3–5.5	145	6.0	4.8–7.4		

		Month 6 to Month 7	440	1.6	1.5–1.7	150	1.6	1.4–1.8
	% ≥4-fold rise	Day 1 to Day 30	531	55.4% (294/531)	51.0–59.6	178	64.0% (114/178)	56.5–71.1
		Day 1 to Month 7	426	50.2% (214/426)	45.4–55.1	145	57.9% (84/145)	49.5–66.1
14	GMT	Month 6 to Month 7	440	11.6% (51/440)	8.8–15.0	150	10.7% (16/150)	6.2–16.7
		Day 1	583	548.8	478.1–629.9	197	514.4	405.8–652.1
		Day 30	549	5120.4	4628.1–5665.1	186	5893.2	5014.8–6925.5
		Month 6	503	2726.8	2454.4–3029.5	168	3419.0	2831.2–4128.8
		Month 7	445	5299.8	4819.8–5827.7	152	5111.5	4301.7–6073.8
	GMFR	Day 1 to Day 30	524	7.9	6.8–9.1	179	9.7	7.5–12.6
		Day 1 to Month 7	425	8.6	7.4–10.0	149	8.7	6.7–11.3
		Month 6 to Month 7	444	2.0	1.8–2.2	150	1.5	1.3–1.7
		Day 1 to Day 30	524	59.4% (311/524)	55.0–63.6	179	61.5% (110/179)	53.9–68.6
		Day 1 to Month 7	425	61.9% (263/425)	57.1–66.5	149	62.4% (93/149)	54.1–70.2
18C	GMT	Month 6 to Month 7	444	18.2% (81/444)	14.8–22.2	150	8.7% (13/150)	4.7–14.4
		Day 1	586	192.0	170.8–215.8	195	175.2	144.1–213.0
		Day 30	549	5840.7	5322.5–6409.3	186	3215.0	2696.2–3833.6
		Month 6	502	2540.0	2311.4–2791.3	169	1596.2	1334.8–1908.9
		Month 7	444	3225.2	2959.6–3514.6	152	2228.6	1910.0–2600.4
	GMFR	Day 1 to Day 30	527	21.6	19.0–24.5	177	13.3	10.8–16.5
		Day 1 to Month 7	424	11.5	10.2–12.9	147	9.4	7.7–11.4
		Month 6 to Month 7	442	1.3	1.2–1.4	151	1.4	1.3–1.6
		Day 1 to Day 30	527	85.0% (448/527)	81.7–87.9	177	77.4% (137/177)	70.5–83.3
		Day 1 to Month 7	424	79.5% (337/424)	75.3–83.2	147	78.2% (115/147)	70.7–84.6
19A	GMT	Month 6 to Month 7	442	4.8% (21/442)	3.0–7.2	151	13.2% (20/151)	8.3–19.7
		Day 1	582	388.2	341.2–441.6	194	331.9	265.8–414.4
		Day 30	551	5508.5	5022.7–6041.4	186	6354.1	5340.4–7560.3
		Month 6	502	2648.6	2417.6–2901.7	170	2867.0	2426.9–3386.9
		Month 7	441	4521.1	4102.2–4982.8	152	4852.9	4185.2–5627.1
	GMFR	Day 1 to Day 30	525	13.0	11.2–15.0	176	17.3	13.6–22.0

		Day 1 to Month 7	423	10.0	8.7–11.6	145	12.9	10.1–16.4
		Month 6 to Month 7	439	1.7	1.5–1.8	152	1.6	1.4–1.9
	% ≥4-fold rise	Day 1 to Day 30	525	73.1% (384/525)	69.1–76.9	176	79.5% (140/176)	72.8–85.2
		Day 1 to Month 7	423	70.4% (298/423)	65.9–74.8	145	77.2% (112/145)	69.5–83.8
		Month 6 to Month 7	439	15.5% (68/439)	12.2–19.2	152	15.1% (23/152)	9.8–21.8
19F	GMT	Day 1	591	355.1	317.1–397.6	195	327.9	269.4–399.1
		Day 30	552	3327.9	3045.9–3636.1	186	3328.0	2889.5–3833.0
		Month 6	502	1704.8	1557.2–1866.4	169	1838.2	1579.8–2139.0
		Month 7	446	3343.9	3083.9–3626.0	152	3004.0	2592.6–3480.8
	GMFR	Day 1 to Day 30	534	7.7	6.8–8.7	177	8.2	6.7–9.9
		Day 1 to Month 7	431	7.5	6.6–8.4	146	7.7	6.4–9.4
		Month 6 to Month 7	445	1.9	1.8–2.1	151	1.6	1.4–1.8
	% ≥4-fold rise	Day 1 to Day 30	534	64.2% (343/534)	60.0–68.3	177	69.5% (123/177)	62.1–76.2
		Day 1 to Month 7	431	63.1% (272/431)	58.4–67.7	146	67.8% (99/146)	59.6–75.3
		Month 6 to Month 7	445	18.9% (84/445)	15.3–22.8	151	11.9% (18/151)	7.2–18.2
23F	GMT	Day 1	563	162.4	138.5–190.5	183	142.0	107.6–187.5
		Day 30	550	4911.5	4372.5–5516.8	184	3731.5	3017.3–4614.9
		Month 6	502	2424.7	2145.0–2740.8	169	1963.5	1569.7–2456.0
		Month 7	445	3022.2	2703.2–3378.8	152	2656.3	2138.6–3299.4
	GMFR	Day 1 to Day 30	508	22.0	18.5–26.0	164	19.2	14.6–25.1
		Day 1 to Month 7	411	13.6	11.5–16.0	136	12.5	9.5–16.5
		Month 6 to Month 7	443	1.3	1.2–1.4	151	1.4	1.2–1.6
	% ≥4-fold rise	Day 1 to Day 30	508	76.8% (390/508)	72.9–80.4	164	78.0% (128/164)	70.9–84.1
		Day 1 to Month 7	411	72.7% (299/411)	68.2–77.0	136	69.9% (95/136)	61.4–77.4
		Month 6 to Month 7	443	8.6% (38/443)	6.1–11.6	151	10.6% (16/151)	6.2–16.6
2 Additional Serotypes in V114								
22F	GMT	Day 1	535	204.0	164.9–252.3	182	128.8	89.5–185.4
		Day 30	543	4498.2	4049.2–4996.9	171	210.0	142.5–309.4

		Month 6	496	2188.9	1981.0–2418.7	151	283.3	189.2–424.4
		Month 7	441	4000.4	3630.3–4408.2	151	4386.8	3426.0–5617.0
	GMFR	Day 1 to Day 30	480	17.8	14.2–22.3	152	1.5	1.1–2.1
		Day 1 to Month 7	388	15.1	12.1–19.0	134	28.0	18.4–42.8
		Month 6 to Month 7	434	1.8	1.6–2.0	133	12.1	7.7–19.0
	% ≥4-fold rise	Day 1 to Day 30	480	63.8% (306/480)	59.3–68.1	152	17.8% (27/152)	12.0–24.8
22F		Day 1 to Month 7	388	63.1% (245/388)	58.1–68.0	134	72.4% (97/134)	64.0–79.8
		Month 6 to Month 7	434	19.6% (85/434)	16.0–23.6	133	54.9% (73/133)	46.0–63.5
33F	GMT	Day 1	589	2086.4	1863.4–2336.0	197	1879.2	1503.4–2349.0
		Day 30	550	12608.2	11452.0– 13881.1	183	1874.0	1473.0–2384.3
		Month 6	502	6988.8	6364.6–7674.1	167	1962.6	1559.7–2469.4
		Month 7	441	11884.2	10700.2– 13199.2	151	18172.6	14759.9–22374.2
	GMFR	Day 1 to Day 30	530	6.0	5.3–6.9	176	1.0	0.8–1.2
		Day 1 to Month 7	427	5.8	5.0–6.6	146	9.2	7.1–11.9
		Month 6 to Month 7	439	1.7	1.5–1.9	148	9.1	7.3–11.3
	% ≥4-fold rise	Day 1 to Day 30	530	56.6% (300/530)	52.3–60.9	176	2.3% (4/176)	0.6–5.7
		Day 1 to Month 7	427	57.1% (244/427)	52.3–61.9	146	69.9% (102/146)	61.7–77.2
		Month 6 to Month 7	439	16.2% (71/439)	12.9–20.0	148	70.3% (104/148)	62.2–77.5

N is the number of participants randomized and vaccinated; n is the number of participants contributing to the analysis. Per protocol, Day 1 is pre-vaccination with PCV, Day 30 is 30 days following vaccination with PCV, Month 6 is 6 months following vaccination with PCV and pre-vaccination with PPSV23, and Month 7 is 30 days following vaccination with PPSV23.

CI: confidence interval; GMFR: geometric mean fold-rise; GMT: geometric mean titer (1/dilution); OPA: opsonophagocytic activity; PCV: pneumococcal conjugate vaccine; PCV13: 13-valent pneumococcal conjugate vaccine; PPSV23: 23-valent pneumococcal polysaccharide vaccine; V114: 15-valent pneumococcal conjugate vaccine.

[†]For the continuous endpoints, the within-group 95% CIs are obtained by exponentiating the CIs of the mean of the natural log values based on the t-distribution. For the dichotomous endpoints, the within-group 95% CIs are based on the exact binomial method proposed by Clopper and Pearson.

Supplemental Table 7. Summary of OPA antibody responses for participants with ≥ 2 risk factors

Pneumococcal Serotype	Endpoint	Timepoint	V114 N = 228			PCV13 N = 76		
			n	Observed Response	95% CI [†]	n	Observed Response	95% CI [†]
13 Shared Serotypes								
1	GMT	Day 1	221	7.7	6.6–8.9	74	7.2	5.6–9.2
		Day 30	201	292.0	237.5–359.1	69	304.2	214.9–430.5
		Month 6	195	91.1	72.5–114.4	63	102.4	66.8–156.9
		Month 7	159	284.8	235.0–345.1	54	199.1	138.6–286.1
	GMFR	Day 1 to Day 30	198	22.5	18.1–28.0	68	25.3	18.3–34.9
		Day 1 to Month 7	156	21.3	17.3–26.3	53	16.1	11.3–22.9
		Month 6 to Month 7	159	2.8	2.4–3.4	54	1.8	1.4–2.4
	% ≥ 4-fold rise	Day 1 to Day 30	198	83.3% (165/198)	77.4–88.2	68	89.7% (61/68)	79.9–95.8
		Day 1 to Month 7	156	89.1% (139/156)	83.1–93.5	53	83.0% (44/53)	70.2–91.9
		Month 6 to Month 7	159	38.4% (61/159)	30.8–46.4	54	16.7% (9/54)	7.9–29.3
3	GMT	Day 1	221	24.9	21.0–29.6	74	20.3	15.8–26.1
		Day 30	197	234.5	194.1–283.4	69	129.2	91.1–183.2
		Month 6	191	108.6	90.5–130.3	62	56.6	41.1–78.0
		Month 7	158	215.3	178.9–259.0	54	174.7	123.9–246.3
	GMFR	Day 1 to Day 30	194	6.4	5.2–7.8	68	4.4	3.4–5.8
		Day 1 to Month 7	155	6.0	5.0–7.3	53	6.1	4.5–8.3
		Month 6 to Month 7	155	1.9	1.7–2.2	53	2.6	2.0–3.4
	% ≥ 4-fold rise	Day 1 to Day 30	194	64.9% (126/194)	57.8–71.6	68	51.5% (35/68)	39.0–63.8

		Day 1 to Month 7	155	66.5% (103/155)	58.4–73.8	53	64.2% (34/53)	49.8–76.9	
4	GMT	Month 6 to Month 7	155	16.1% (25/155)	10.7–22.9	53	28.3% (15/53)	16.8–42.3	
		Day 1	219	49.8	40.8–60.7	74	59.0	41.1–84.9	
		Day 30	201	1487.6	1239.0–1786.0	69	2449.2	1845.4–3250.5	
		Month 6	194	595.1	484.2–731.3	63	1147.4	826.8–1592.4	
		Month 7	160	1619.3	1348.6–1944.4	54	1739.6	1261.0–2399.8	
	GMFR	Day 1 to Day 30	196	20.4	16.2–25.8	68	31.9	21.4–47.7	
		Day 1 to Month 7	156	21.0	16.4–26.9	53	23.2	15.1–35.6	
		Month 6 to Month 7	159	2.5	2.1–3.0	54	1.5	1.2–1.8	
		% ≥4-fold rise	Day 1 to Day 30	196	81.1% (159/196)	74.9–86.3	68	85.3% (58/68)	74.6–92.7
			Day 1 to Month 7	156	84.6% (132/156)	78.0–89.9	53	81.1% (43/53)	68.0–90.6
5	GMT	Month 6 to Month 7	159	30.8% (49/159)	23.7–38.6	54	7.4% (4/54)	2.1–17.9	
		Day 1	221	17.5	15.8–19.3	74	17.5	14.6–21.1	
		Day 30	201	582.2	469.5–722.0	69	583.6	382.9–889.5	
		Month 6	195	224.9	177.4–285.1	63	183.9	119.2–283.8	
		Month 7	160	523.9	418.9–655.1	54	429.9	281.8–655.9	
	GMFR	Day 1 to Day 30	198	19.7	16.1–24.1	68	19.0	13.0–27.8	
		Day 1 to Month 7	157	17.6	14.4–21.6	53	14.2	9.8–20.6	
		Month 6 to Month 7	160	2.2	1.9–2.6	54	2.3	1.7–3.0	
		% ≥4-fold rise	Day 1 to Day 30	198	85.9% (170/198)	80.2–90.4	68	82.4% (56/68)	71.2–90.5
			Day 1 to Month 7	157	85.4% (134/157)	78.8–90.5	53	86.8% (46/53)	74.7–94.5
6A	GMT	Month 6 to Month 7	160	23.8% (38/160)	17.4–31.1	54	31.5% (17/54)	19.5–45.6	
		Day 1	200	457.7	381.9–548.5	70	388.2	286.1–526.7	
		Day 30	199	11924.9	9847.1–14441.2	67	9968.8	6971.9–14254.0	
		Month 6	190	4999.5	4079.1–6127.6	62	4533.4	3358.5–6119.3	
		Month 7	159	4430.9	3606.4–5444.0	52	5792.7	4126.9–8131.0	

	GMFR	Day 1 to Day 30	178	20.9	16.7–26.3	62	19.6	12.8–30.0
		Day 1 to Month 7	143	7.6	6.0–9.7	48	10.8	7.2–16.4
		Month 6 to Month 7	156	0.9	0.8–1.0	51	1.1	0.9–1.4
	% ≥4-fold rise	Day 1 to Day 30	178	89.3%	83.8–93.4	62	80.6% (50/62)	68.6–89.6
				(159/178)				
		Day 1 to Month 7	143	67.1% (96/143)	58.8–74.8	48	75.0% (36/48)	60.4–86.4
		Month 6 to Month 7	156	1.9% (3/156)	0.4–5.5	51	11.8% (6/51)	4.4–23.9
6B	GMT	Day 1	209	247.4	189.8–322.6	73	291.3	187.4–452.8
		Day 30	201	9053.1	7673.5–10680.9	69	5545.2	4001.0–7685.3
		Month 6	195	4101.6	3457.8–4865.3	63	3072.9	2222.8–4248.1
		Month 7	160	4563.4	3848.2–5411.6	54	4300.2	3184.3–5807.1
	GMFR	Day 1 to Day 30	186	29.4	21.9–39.3	67	17.8	11.4–27.8
		Day 1 to Month 7	148	14.2	10.4–19.4	52	12.9	8.0–20.8
		Month 6 to Month 7	160	1.1	1.0–1.3	54	1.2	0.9–1.4
	% ≥4-fold rise	Day 1 to Day 30	186	82.8%	76.6–87.9	67	77.6% (52/67)	65.8–86.9
				(154/186)				
		Day 1 to Month 7	148	70.3%	62.2–77.5	52	71.2% (37/52)	56.9–82.9
				(104/148)				
		Month 6 to Month 7	160	5.6% (9/160)	2.6–10.4	54	3.7% (2/54)	0.5–12.7
7F	GMT	Day 1	208	632.1	498.8–801.0	69	719.3	463.4–1116.4
		Day 30	201	6399.7	5561.5–7364.1	69	7622.9	5546.4–10476.9
		Month 6	194	3167.2	2772.5–3617.9	63	3902.8	3005.6–5067.7
		Month 7	160	6406.9	5513.3–7445.3	54	6333.1	4741.2–8459.6
	GMFR	Day 1 to Day 30	191	8.4	6.6–10.7	63	9.4	6.3–14.1
		Day 1 to Month 7	149	9.2	7.0–11.9	50	6.9	4.5–10.6
		Month 6 to Month 7	159	2.0	1.8–2.3	54	1.5	1.2–1.7
	% ≥4-fold rise	Day 1 to Day 30	191	60.2%	52.9–67.2	63	68.3% (43/63)	55.3–79.4
				(115/191)				
		Day 1 to Month 7	149	62.4% (93/149)	54.1–70.2	50	56.0% (28/50)	41.3–70.0
		Month 6 to Month 7	159	20.1% (32/159)	14.2–27.2	54	5.6% (3/54)	1.2–15.4
9V	GMT	Day 1	218	453.7	379.1–543.0	73	687.8	497.8–950.2

		Day 30	199	3563.8	3069.6–4137.5	69	3663.4	2859.4–4693.4
		Month 6	193	1762.8	1498.0–2074.5	62	1899.2	1393.3–2588.8
		Month 7	160	2706.8	2270.2–3227.4	54	2934.6	2244.7–3836.5
	GMFR	Day 1 to Day 30	193	6.4	5.4–7.6	67	5.0	3.7–6.6
		Day 1 to Month 7	156	5.2	4.3–6.3	52	3.8	2.8–5.3
		Month 6 to Month 7	158	1.6	1.4–1.8	53	1.4	1.1–1.9
	% ≥4-fold rise	Day 1 to Day 30	193	58.5% (113/193)	51.3–65.6	67	52.2% (35/67)	39.7–64.6
		Day 1 to Month 7	156	55.1% (86/156)	47.0–63.1	52	48.1% (25/52)	34.0–62.4
		Month 6 to Month 7	158	10.1% (16/158)	5.9–15.9	53	7.5% (4/53)	2.1–18.2
14	GMT	Day 1	218	431.2	340.1–546.6	72	628.4	421.4–936.9
		Day 30	201	4326.5	3625.3–5163.3	69	5669.1	4281.5–7506.4
		Month 6	195	2661.3	2261.4–3131.9	63	3443.9	2561.8–4629.8
		Month 7	160	4511.8	3846.2–5292.6	54	4829.6	3481.6–6699.5
	GMFR	Day 1 to Day 30	195	8.3	6.5–10.6	66	7.8	5.2–11.8
		Day 1 to Month 7	156	9.3	7.2–11.8	51	6.2	3.8–10.1
		Month 6 to Month 7	160	1.8	1.5–2.0	54	1.3	1.0–1.5
	% ≥4-fold rise	Day 1 to Day 30	195	63.1% (123/195)	55.9–69.9	66	63.6% (42/66)	50.9–75.1
		Day 1 to Month 7	156	64.7% (101/156)	56.7–72.2	51	52.9% (27/51)	38.5–67.1
		Month 6 to Month 7	160	15.6% (25/160)	10.4–22.2	54	3.7% (2/54)	0.5–12.7
18C	GMT	Day 1	210	185.4	152.7–225.1	72	149.9	108.5–207.1
		Day 30	199	5836.2	4976.9–6843.9	69	2588.9	1934.4–3464.8
		Month 6	194	2593.3	2194.8–3064.2	63	1058.3	804.3–1392.5
		Month 7	160	3063.5	2614.1–3590.1	53	1923.3	1462.9–2528.7
	GMFR	Day 1 to Day 30	185	20.7	16.6–25.9	67	11.3	8.4–15.4
		Day 1 to Month 7	149	10.1	8.1–12.5	51	8.6	6.2–11.9
		Month 6 to Month 7	159	1.3	1.1–1.4	53	1.6	1.3–2.0
	% ≥4-fold rise	Day 1 to Day 30	185	84.3% (156/185)	78.3–89.2	67	79.1% (53/67)	67.4–88.1

		Day 1 to Month 7	149	73.8% (110/149)	66.0–80.7	51	76.5% (39/51)	62.5–87.2	
19A	GMT	Month 6 to Month 7	159	3.8% (6/159)	1.4–8.0	53	11.3% (6/53)	4.3–23.0	
		Day 1	217	325.3	261.0–405.4	70	408.5	282.9–589.9	
		Day 30	201	5016.7	4257.1–5911.9	69	5287.3	4097.2–6823.1	
		Month 6	194	2353.2	1998.1–2771.3	63	2687.1	2159.2–3344.2	
		Month 7	158	4223.0	3466.0–5145.3	54	4251.1	3193.8–5658.5	
	GMFR	Day 1 to Day 30	195	13.8	10.8–17.5	64	11.9	8.1–17.5	
		Day 1 to Month 7	151	11.0	8.4–14.4	51	8.8	5.5–13.8	
		Month 6 to Month 7	157	1.9	1.7–2.2	54	1.5	1.2–1.8	
		% ≥4-fold rise	Day 1 to Day 30	195	71.3% (139/195)	64.4–77.5	64	76.6% (49/64)	64.3–86.2
			Day 1 to Month 7	151	69.5% (105/151)	61.5–76.8	51	74.5% (38/51)	60.4–85.7
19F	GMT	Month 6 to Month 7	157	21.7% (34/157)	15.5–28.9	54	9.3% (5/54)	3.1–20.3	
		Day 1	213	317.7	264.7–381.2	72	306.7	220.0–427.7	
		Day 30	200	2954.9	2555.6–3416.6	69	2698.5	2119.0–3436.5	
		Month 6	195	1532.0	1300.0–1805.5	63	1432.9	1075.3–1909.3	
		Month 7	160	2753.3	2339.8–3239.9	53	3616.2	2886.6–4530.2	
	GMFR	Day 1 to Day 30	189	8.0	6.6–9.7	66	8.0	5.8–11.2	
		Day 1 to Month 7	154	6.6	5.3–8.2	50	9.3	6.3–13.9	
		Month 6 to Month 7	160	1.9	1.7–2.1	53	2.0	1.6–2.6	
		% ≥4-fold rise	Day 1 to Day 30	189	67.2% (127/189)	60.0–73.8	66	69.7% (46/66)	57.1–80.4
			Day 1 to Month 7	154	61.0% (94/154)	52.9–68.8	50	68.0% (34/50)	53.3–80.5
23F	GMT	Month 6 to Month 7	160	15.0% (24/160)	9.9–21.5	53	17.0% (9/53)	8.1–29.8	
		Day 1	211	124.8	97.6–159.7	71	201.8	130.9–311.2	
		Day 30	201	4428.2	3624.7–5409.9	69	3236.3	2189.5–4783.6	
		Month 6	195	2163.7	1768.6–2646.9	63	2094.7	1432.8–3062.3	
	GMFR	Month 7	156	2677.4	2229.1–3215.7	54	2554.7	1761.1–3705.9	
		Day 1 to Day 30	188	23.5	18.0–30.8	65	13.7	8.5–22.0	

		Day 1 to Month 7	144	13.6	10.3–18.1	51	9.2	5.5–15.2
		Month 6 to Month 7	156	1.1	1.0–1.3	54	1.2	0.8–1.7
	% ≥4-fold rise	Day 1 to Day 30	188	77.1% (145/188)	70.5–82.9	65	67.7% (44/65)	54.9–78.8
		Day 1 to Month 7	144	70.8% (102/144)	62.7–78.1	51	64.7% (33/51)	50.1–77.6
		Month 6 to Month 7	156	7.7% (12/156)	4.0–13.1	54	7.4% (4/54)	2.1–17.9
2 Additional Serotypes in V114								
22F	GMT	Day 1	199	226.3	161.0–318.3	72	211.0	111.7–398.5
		Day 30	197	3645.7	3069.2–4330.5	65	305.0	160.2–580.9
		Month 6	192	1696.2	1411.0–2039.2	58	295.2	146.7–594.0
		Month 7	160	3108.8	2669.8–3619.9	53	3707.4	2218.8–6194.6
	GMFR	Day 1 to Day 30	173	12.1	8.4–17.4	62	1.2	0.7–1.8
		Day 1 to Month 7	145	10.6	7.5–15.0	51	15.3	7.7–30.5
		Month 6 to Month 7	157	1.9	1.6–2.3	50	11.5	5.8–22.9
	% ≥4-fold rise	Day 1 to Day 30	173	58.4% (101/173)	50.7–65.8	62	14.5% (9/62)	6.9–25.8
		Day 1 to Month 7	145	60.0% (87/145)	51.5–68.0	51	66.7% (34/51)	52.1–79.2
		Month 6 to Month 7	157	17.8% (28/157)	12.2–24.7	50	54.0% (27/50)	39.3–68.2
33F	GMT	Day 1	215	1630.6	1320.3–2013.9	72	2544.0	1816.2–3563.4
		Day 30	201	9240.5	7778.9–10976.8	67	1854.6	1165.9–2949.9
		Month 6	194	5632.0	4766.5–6654.8	63	2022.1	1375.3–2973.0
		Month 7	160	7708.6	6353.6–9352.5	54	14364.8	9477.2–21773.1
	GMFR	Day 1 to Day 30	192	5.7	4.5–7.1	64	0.8	0.5–1.2
		Day 1 to Month 7	152	4.5	3.5–5.7	52	5.9	3.9–9.0
		Month 6 to Month 7	159	1.4	1.2–1.6	54	6.0	4.4–8.4
	% ≥4-fold rise	Day 1 to Day 30	192	55.2% (106/192)	47.9–62.4	64	4.7% (3/64)	1.0–13.1
		Day 1 to Month 7	152	48.7% (74/152)	40.5–56.9	52	59.6% (31/52)	45.1–73.0
		Month 6 to Month 7	159	11.3% (18/159)	6.8–17.3	54	66.7% (36/54)	52.5–78.9

N is the number of participants randomized and vaccinated; n is the number of participants contributing to the analysis. Per protocol, Day 1 is pre-vaccination with PCV, Day 30 is 30 days following vaccination with PCV, Month 6 is 6 months following vaccination with PCV and pre-vaccination with PPSV23, and Month 7 is 30 days following vaccination with PPSV23.

CI: confidence interval; GMFR: geometric mean fold-rise; GMT: geometric mean titer (1/dilution); OPA: opsonophagocytic activity; PCV: pneumococcal conjugate vaccine; PCV13: 13-valent pneumococcal conjugate vaccine; PPSV23: 23-valent pneumococcal polysaccharide vaccine; V114: 15-valent pneumococcal conjugate vaccine.

†For the continuous endpoints, the within-group 95% CIs are obtained by exponentiating the CIs of the mean of the natural log values based on the t-distribution. For the dichotomous endpoints, the within-group 95% CIs are based on the exact binomial method proposed by Clopper and Pearson.

Supplemental Table 8. Summary of OPA GMTs for participants with only chronic heart disease

Pneumococcal Serotype	Timepoint	V114 N = 57			PCV13 N = 20		
		n	Observed GMT	95% CI [†]	n	Observed GMT	95% CI [†]
1	Day 1	51	10.5	7.2–15.2	18	6.9	4.3–11.1
	Day 30	47	389.6	253.0–600.0	17	258.1	110.8–600.9
	Month 6	40	113.0	71.9–177.5	16	115.5	51.9–256.9
	Month 7	30	261.1	171.3–398.1	11	133.7	43.2–414.1
3	Day 1	51	21.5	14.5–31.8	18	18.2	11.1–30.0
	Day 30	47	229.7	161.1–327.6	17	113.6	67.4–191.4
	Month 6	40	129.5	83.9–199.9	15	73.2	35.8–149.7
	Month 7	30	305.7	188.3–496.1	10	180.4	77.0–422.7
4	Day 1	50	80.5	51.7–125.4	17	43.2	18.3–102.0
	Day 30	47	1849.0	1308.8–2612.0	16	1887.3	1211.2–2940.9
	Month 6	40	803.9	522.4–1237.1	16	728.8	330.5–1607.2
	Month 7	30	2189.4	1623.7–2952.1	11	1369.5	790.7–2372.1
5	Day 1	51	19.2	15.4–24.0	18	17.7	12.9–24.4
	Day 30	47	798.4	551.7–1155.4	17	754.1	309.9–1834.6

	Month 6	40	212.5	133.1–339.3	16	409.4	174.5–960.7
	Month 7	30	718.6	495.1–1043.0	11	605.4	189.2–1936.8
6A	Day 1	48	390.5	269.2–566.5	17	404.8	180.1–910.1
	Day 30	47	10,708.5	7243.9–15,830.1	17	10,054.1	3918.8–25,794.7
	Month 6	40	5123.2	3467.1–7570.3	16	6621.1	3140.9–13,957.5
	Month 7	29	5624.8	3926.3–8058.1	10	6001.9	2063.0–17,461.3
6B	Day 1	49	376.4	218.6–648.1	18	225.5	78.1–651.6
	Day 30	47	8246.0	5659.2–12,015.2	17	5772.3	2840.9–11,728.5
	Month 6	40	4286.6	2966.7–6193.6	15	3341.3	1434.2–7784.3
	Month 7	30	5108.0	3820.5–6829.4	11	3883.5	1974.6–7638.0
7F	Day 1	49	839.7	589.9–1195.2	18	462.3	184.4–1159.0
	Day 30	47	5514.2	3985.6–7628.9	17	8025.2	4473.2–14,397.6
	Month 6	40	3165.7	2444.3–4099.9	16	3875.0	2324.9–6458.8
	Month 7	30	4543.4	3380.5–6106.3	11	4662.8	2788.2–7797.8
9V	Day 1	50	339.8	232.6–496.2	17	276.2	128.1–595.9
	Day 30	47	3285.6	2191.7–4925.6	17	2850.7	1502.6–5408.5
	Month 6	40	1479.7	1005.0–2178.8	16	1797.8	855.3–3778.6
	Month 7	30	2504.6	1659.5–3780.2	11	2505.6	986.5–6364.1
14	Day 1	50	823.8	537.9–1261.7	18	222.9	90.8–547.5

	Day 30	47	5889.1	4161.1–8334.6	17	4046.8	1893.6–8648.6
	Month 6	40	3297.3	2208.1–4924.0	16	3029.1	1188.0–7723.6
	Month 7	30	7112.2	4991.4–10,134.0	11	4161.4	1662.1–10,419.0
18C	Day 1	51	155.9	108.3–224.4	18	128.5	71.8–230.0
	Day 30	47	6180.1	4370.5–8739.0	17	2069.4	833.2–5139.7
	Month 6	40	2146.2	1432.9–3214.7	16	1073.4	451.0–2554.8
	Month 7	30	2540.9	1638.7–3939.7	11	994.7	479.1–2065.1
19A	Day 1	51	287.8	178.1–465.0	18	327.5	150.8–711.4
	Day 30	47	4827.4	3316.4–7026.8	17	4398.5	2174.6–8896.6
	Month 6	40	1986.4	1363.8–2893.0	16	2193.0	1159.7–4147.2
	Month 7	29	3045.1	2173.9–4265.4	11	3076.4	1421.4–6658.4
19F	Day 1	49	355.5	236.7–533.9	18	343.7	197.4–598.5
	Day 30	47	2745.5	1976.5–3813.6	17	2276.3	1509.8–3431.7
	Month 6	40	1356.3	939.4–1958.1	16	980.4	475.5–2021.3
	Month 7	30	2609.8	1956.6–3481.2	11	1600.3	791.5–3235.3
23F	Day 1	49	137.8	79.5–238.7	17	164.2	52.0–517.8
	Day 30	47	4337.7	2657.0–7081.5	17	2269.0	1065.6–4831.4
	Month 6	40	2722.6	1636.7–4528.8	16	1205.8	345.0–4213.9
	Month 7	30	3178.8	2043.2–4945.6	11	1397.2	486.9–4009.6

2 Additional Serotypes in V114

22F	Day 1	46	190.9	88.8–410.3	18	137.8	40.2–472.4
	Day 30	46	6758.8	4831.0–9455.9	17	185.9	42.5–812.7
	Month 6	40	3201.9	2300.1–4457.2	14	129.1	28.2–590.2
	Month 7	30	5356.1	3502.2–8191.3	11	1446.3	721.7–2898.4
33F	Day 1	49	1736.6	1065.9–2829.5	18	1268.1	574.2–2800.3
	Day 30	47	11,697.0	8503.2–16,090.3	17	1741.2	883.5–3431.4
	Month 6	40	6250.1	4435.3–8807.6	16	918.9	399.5–2113.6
	Month 7	30	8571.5	6411.2–11,459.8	11	14,956.9	6864.3–32,590.1

N is the number of participants randomized and vaccinated; n is the number of participants contributing to the analysis. Per protocol, Day 1 is pre-vaccination with PCV, Day 30 is 30 days following vaccination with PCV, Month 6 is 6 months following vaccination with PCV and pre-vaccination with PPSV23, and Month 7 is 30 days following vaccination with PPSV23.

CI: confidence interval; GMT: geometric mean titer (1/dilution); OPA: opsonophagocytic activity; PCV: pneumococcal conjugate vaccine; PCV13: 13-valent pneumococcal conjugate vaccine; PPSV23: 23-valent pneumococcal polysaccharide vaccine; V114: 15-valent pneumococcal conjugate vaccine.

†The within-group 95% CIs are obtained by exponentiating the CIs of the mean of the natural log values based on the t-distribution.

Supplemental Table 9. Summary of OPA GMTs for participants with only chronic liver disease or only alcohol consumption

Pneumococcal Serotype	V114 N = 78				PCV13 N = 27		
13 Shared Serotypes	Timepoint	n	Observed GMT	95% CI[†]	n	Observed GMT	95% CI[†]
1	Day 1	77	6.5	5.1–8.4	27	7.3	4.7–11.3
	Day 30	70	260.7	178.2–381.3	22	322.0	139.5–743.2
	Month 6	62	80.1	50.6–126.7	24	93.0	41.7–207.5
	Month 7	58	203.1	129.9–317.5	23	220.2	110.8–437.9
3	Day 1	77	21.6	16.7–28.1	27	16.0	10.8–23.8
	Day 30	69	284.1	207.7–388.5	22	137.4	77.3–244.0
	Month 6	61	137.1	97.2–193.3	25	77.0	46.4–127.8
	Month 7	57	258.2	185.7–359.0	23	242.3	147.3–398.6
4	Day 1	77	39.6	28.5–54.8	27	34.3	20.6–57.0
	Day 30	70	1080.8	746.3–1565.1	23	2189.3	1582.0–3029.6
	Month 6	62	562.7	401.5–788.7	25	1034.1	595.2–1796.6
	Month 7	58	1375.5	1061.6–1782.2	23	2370.9	1853.5–3032.6
5	Day 1	78	17.9	15.0–21.5	27	15.9	12.1–20.8
	Day 30	70	442.5	298.9–655.3	23	709.6	334.2–1506.8

	Month 6	62	156.1	110.0–221.6	25	177.4	86.4–364.2
	Month 7	58	441.1	300.5–647.5	23	555.3	280.3–1100.1
6A	Day 1	71	373.7	276.7–504.7	23	262.5	160.4–429.7
	Day 30	69	13,918.7	10,248.9–18,902.5	22	14,787.7	8688.2–25,169.5
	Month 6	61	5658.3	4254.7–7524.9	25	4730.8	2755.8–8121.2
	Month 7	55	5234.8	3969.8–6902.9	23	5271.1	3100.9–8960.0
6B	Day 1	75	164.2	104.0–259.1	26	224.0	99.8–502.8
	Day 30	70	10,026.6	7645.7–13,148.8	23	5571.0	2522.5–12,303.6
	Month 6	62	4729.2	3667.8–6097.6	25	2744.0	1456.5–5169.8
	Month 7	58	5421.8	4247.7–6920.4	23	3988.9	2351.6–6766.0
7F	Day 1	71	554.9	359.4–856.9	26	861.7	421.0–1763.7
	Day 30	70	8055.6	6077.4–10,677.8	23	6678.2	4627.8–9637.0
	Month 6	62	3479.3	2776.7–4359.7	25	4377.3	3349.9–5719.8
	Month 7	58	7051.9	5402.0–9205.8	23	6024.2	4542.6–7989.2
9V	Day 1	78	682.3	506.0–920.2	27	731.8	417.6–1282.6
	Day 30	70	3817.9	3032.6–4806.6	23	5095.9	3708.1–7003.2
	Month 6	62	2175.4	1731.5–2733.1	25	2868.3	1837.7–4477.0
	Month 7	58	3758.1	3008.4–4694.6	23	3547.0	2572.9–4889.8
14	Day 1	75	558.5	378.0–825.4	27	562.1	288.1–1096.8

	Day 30	70	7545.9	5276.3–10,791.7	23	5569.6	3409.0–9099.6
	Month 6	62	3505.3	2519.7–4876.4	25	3923.3	2426.6–6343.3
	Month 7	58	6966.5	5213.6–9308.8	23	5902.6	3910.1–8910.5
18C	Day 1	77	171.3	123.4–237.7	25	177.5	96.4–326.8
	Day 30	70	6244.8	4964.9–7854.6	23	2859.1	1416.2–5772.4
	Month 6	62	2542.2	1993.8–3241.5	25	1464.9	883.8–2428.0
	Month 7	57	2990.3	2433.6–3674.4	23	2276.8	1509.4–3434.2
19A	Day 1	74	337.7	234.7–485.8	26	256.0	129.3–506.6
	Day 30	70	5656.2	4447.8–7193.1	23	6194.8	3001.1–12,786.8
	Month 6	62	3001.5	2373.0–3796.4	25	2714.9	1417.7–5199.0
	Month 7	58	4690.7	3487.0–6309.9	23	5224.5	3139.1–8695.3
19F	Day 1	78	259.1	192.0–349.6	26	304.6	173.9–533.4
	Day 30	70	3816.0	2977.1–4891.4	23	3596.7	2260.8–5722.2
	Month 6	62	1862.0	1435.1–2415.9	25	1820.4	1300.8–2547.6
	Month 7	58	3262.6	2604.6–4086.9	23	2724.1	2066.2–3591.4
23F	Day 1	72	151.5	98.4–233.3	26	94.0	45.7–193.3
	Day 30	70	5467.9	3848.3–7769.0	22	3253.9	1486.1–7124.5
	Month 6	62	3137.9	2273.5–4331.0	25	1759.4	953.4–3246.8
	Month 7	58	4001.4	2828.8–5660.2	23	2247.6	1258.3–4014.6

2 Additional Serotypes in V114

22F	Day 1	75	289.2	168.1–497.5	27	190.5	73.9–491.2
	Day 30	70	4097.4	2913.8–5761.9	21	182.9	61.9–540.1
	Month 6	62	1886.6	1344.5–2647.2	22	530.5	201.4–1397.4
	Month 7	56	3446.8	2741.5–4333.5	23	2975.3	1508.9–5866.5
33F	Day 1	75	2175.3	1595.9–2965.1	27	1755.6	846.7–3640.1
	Day 30	70	12,939.5	9854.5–16,990.2	22	2367.7	1102.3–5086.1
	Month 6	62	7921.2	6248.0–10,042.4	24	2305.6	1210.0–4393.1
	Month 7	58	11,934.2	9108.8–15,636.1	23	14,618.0	8683.4–24,608.6

N is the number of participants randomized and vaccinated; n is the number of participants contributing to the analysis. Per protocol, Day 1 is pre-vaccination with PCV, Day 30 is 30 days following vaccination with PCV, Month 6 is 6 months following vaccination with PCV and pre-vaccination with PPSV23, and Month 7 is 30 days following vaccination with PPSV23.

CI: confidence interval; GMT: geometric mean titer (1/dilution); OPA: opsonophagocytic activity; PCV: pneumococcal conjugate vaccine; PCV13: 13-valent pneumococcal conjugate vaccine; PPSV23: 23-valent pneumococcal polysaccharide vaccine; V114: 15-valent pneumococcal conjugate vaccine.

†The within-group 95% CIs are obtained by exponentiating the CIs of the mean of the natural log values based on the t-distribution.

Supplemental Table 10. Summary of OPA GMTs for participants with only chronic lung disease

Pneumococcal Serotype	Timepoint	V114 N = 163			PCV13 N = 53		
		n	Observed GMT	95% CI [†]	n	Observed GMT	95% CI [†]
1	Day 1	151	8.1	6.8–9.6	50	9.6	6.7–13.8
	Day 30	141	428.2	336.9–544.3	48	449.2	281.6–716.6
	Month 6	128	128.6	98.4–168.0	44	194.8	118.4–320.7
	Month 7	115	364.5	293.9–452.1	41	295.9	205.8–425.3
3	Day 1	149	28.1	22.8–34.7	49	22.0	15.9–30.2
	Day 30	139	184.6	151.9–224.3	48	182.3	135.8–244.8
	Month 6	127	109.0	88.8–133.7	43	88.3	60.4–129.0
	Month 7	115	214.1	176.6–259.6	41	234.9	174.9–315.3
4	Day 1	147	52.9	40.9–68.5	49	56.7	35.0–91.7
	Day 30	141	2282.7	1902.2–2739.3	48	3371.8	2533.8–4487.1
	Month 6	128	1065.1	886.3–1279.9	44	1372.8	957.8–1967.8
	Month 7	115	2203.2	1838.6–2640.0	41	2097.1	1558.6–2821.6
5	Day 1	151	18.2	15.9–20.8	50	20.9	15.6–27.9
	Day 30	141	740.5	586.9–934.4	48	711.1	427.8–1182.0

	Month 6	127	264.5	204.3–342.5	44	368.3	211.0–643.0
	Month 7	115	742.5	608.1–906.7	41	734.3	490.3–1099.7
6A	Day 1	145	528.4	419.4–665.9	45	325.8	221.4–479.5
	Day 30	140	16,229.7	13,442.7–19,594.4	47	14,936.1	9462.8–23,575.2
	Month 6	123	6086.4	4923.2–7524.6	44	5461.7	3432.3–8691.0
	Month 7	113	6474.4	5312.5–7890.4	40	7014.2	4417.1–11,138.3
6B	Day 1	149	309.9	219.5–437.5	47	145.9	81.8–260.2
	Day 30	141	12,093.4	10,240.9–14,281.0	47	9165.0	5896.2–14,245.9
	Month 6	127	5549.3	4602.5–6690.9	44	3577.3	2218.8–5767.7
	Month 7	114	5729.8	4819.1–6812.6	41	4039.8	2851.1–5724.2
7F	Day 1	144	637.7	475.5–855.2	48	664.5	409.5–1078.5
	Day 30	141	6038.3	5093.5–7158.2	47	7616.3	5577.8–10,399.8
	Month 6	127	3151.4	2650.0–3747.7	44	4924.6	3572.7–6787.9
	Month 7	115	6093.0	5149.7–7209.1	41	5612.3	4087.1–7706.7
9V	Day 1	151	511.9	408.1–642.2	49	426.5	274.8–661.9
	Day 30	141	3831.4	3193.3–4596.9	48	4632.0	3445.6–6227.0
	Month 6	126	1743.2	1431.1–2123.5	43	2379.7	1628.1–3478.3
	Month 7	114	2994.6	2445.9–3666.4	41	3816.5	2763.6–5270.6
14	Day 1	147	571.1	432.3–754.4	50	438.6	260.3–739.0

	Day 30	141	5340.9	4393.8–6492.1	48	5342.6	3985.5–7161.8
	Month 6	128	3096.2	2485.4–3857.1	43	3195.2	2177.7–4688.1
	Month 7	114	5219.0	4300.5–6333.6	41	4618.8	3403.9–6267.3
18C	Day 1	147	214.4	168.2–273.4	49	210.6	139.7–317.5
	Day 30	140	6703.7	5677.6–7915.2	48	3286.6	2410.6–4480.8
	Month 6	128	2777.0	2348.2–3284.2	44	2048.5	1485.1–2825.7
	Month 7	114	3659.2	3138.4–4266.4	41	2495.3	1760.3–3537.1
19A	Day 1	146	329.8	247.4–439.7	48	295.4	190.4–458.3
	Day 30	141	5925.1	4980.1–7049.5	48	5654.4	4328.9–7385.9
	Month 6	128	2786.6	2266.9–3425.6	44	2592.2	1987.9–3380.3
	Month 7	114	4902.2	4101.5–5859.2	41	5413.3	4094.7–7156.5
19F	Day 1	149	406.4	324.7–508.6	49	353.8	240.1–521.2
	Day 30	141	3902.3	3269.3–4657.9	48	2987.7	2237.9–3988.8
	Month 6	128	1795.0	1496.5–2152.9	43	2118.3	1670.3–2686.5
	Month 7	115	3786.1	3232.2–4434.9	41	3186.5	2334.6–4349.3
23F	Day 1	144	206.3	148.2–287.3	46	156.8	88.0–279.5
	Day 30	141	5910.0	4789.3–7292.8	48	3576.4	2292.1–5580.4
	Month 6	128	2898.1	2259.3–3717.6	44	2392.3	1548.9–3695.0
	Month 7	115	3367.4	2716.3–4174.5	41	3101.8	1948.9–4936.6

2 Additional Serotypes in V114

22F	Day 1	135	223.4	145.6–342.8	42	105.9	48.5–230.9
	Day 30	139	5252.6	4330.0–6371.7	45	254.9	118.4–548.6
	Month 6	126	2436.9	2073.6–2864.0	41	405.9	196.6–838.0
	Month 7	114	4155.1	3509.1–4920.0	41	7758.2	4635.1–12,985.6
33F	Day 1	148	2209.0	1794.0–2720.1	48	2023.2	1326.7–3085.3
	Day 30	141	14,560.8	11,880.2–17,846.4	48	2260.3	1442.8–3540.8
	Month 6	128	7982.3	6528.4–9759.9	42	2428.9	1471.6–4009.0
	Month 7	113	11,947.4	9882.3–14,444.1	41	24,161.7	16,008.5–36,467.4

N is the number of participants randomized and vaccinated; n is the number of participants contributing to the analysis. Per protocol, Day 1 is pre-vaccination with PCV, Day 30 is 30 days following vaccination with PCV, Month 6 is 6 months following vaccination with PCV and pre-vaccination with PPSV23, and Month 7 is 30 days following vaccination with PPSV23.

CI: confidence interval; GMT: geometric mean titer (1/dilution); OPA: opsonophagocytic activity; PCV: pneumococcal conjugate vaccine; PCV13: 13-valent pneumococcal conjugate vaccine; PPSV23: 23-valent pneumococcal polysaccharide vaccine; V114: 15-valent pneumococcal conjugate vaccine.

†The within-group 95% CIs are obtained by exponentiating the CIs of the mean of the natural log values based on the t-distribution.

Supplemental Table 11. Summary of OPA GMTs for participants with only diabetes mellitus

Pneumococcal Serotype		V114 N = 157			PCV13 N = 51		
13 Shared Serotypes	Timepoint	n	Observed GMT	95% CI [†]	n	Observed GMT	95% CI [†]
1	Day 1	154	8.3	6.9–9.9	49	10.2	7.2–14.3
	Day 30	142	317.6	242.3–416.1	48	692.2	443.9–1079.3
	Month 6	139	115.2	89.7–148.1	40	219.9	132.7–364.5
	Month 7	125	328.4	263.9–408.6	37	431.0	294.9–629.8
3	Day 1	152	21.0	17.3–25.4	48	21.0	15.6–28.3
	Day 30	141	233.3	199.5–272.8	48	178.4	118.9–267.5
	Month 6	136	113.2	94.8–135.2	40	94.3	61.7–144.1
	Month 7	125	224.4	189.0–266.3	36	250.4	184.5–340.0
4	Day 1	153	57.2	44.0–74.4	47	44.2	28.7–68.0
	Day 30	142	1700.4	1410.2–2050.3	48	3091.5	2104.9–4540.5
	Month 6	140	766.9	618.9–950.2	39	1201.4	748.2–1928.9
	Month 7	125	1991.7	1667.3–2379.3	38	2137.5	1483.8–3079.1
5	Day 1	154	20.6	17.6–24.1	49	19.9	15.4–25.5
	Day 30	142	743.9	575.7–961.2	48	1285.2	828.1–1994.5

	Month 6	140	239.0	182.0–313.8	40	560.7	337.6–931.3
	Month 7	126	772.7	618.4–965.4	38	1095.6	744.8–1611.5
6A	Day 1	140	372.0	297.3–465.5	43	289.8	201.1–417.8
	Day 30	141	13,098.4	10,538.2–16,280.6	47	12,618.3	9266.7–17,182.2
	Month 6	138	5698.2	4635.8–7003.9	38	5251.2	3667.5–7518.8
	Month 7	125	6254.7	5103.1–7666.1	38	6495.0	4769.2–8845.2
6B	Day 1	153	189.7	138.0–260.8	48	188.3	110.7–320.4
	Day 30	142	9844.8	8162.4–11,873.9	48	7413.4	5432.6–10,116.4
	Month 6	140	3872.2	3101.2–4834.8	39	3216.5	2134.2–4847.8
	Month 7	126	4604.1	3728.1–5686.0	38	5194.7	3978.2–6783.2
7F	Day 1	145	421.9	313.4–567.9	48	353.1	211.5–589.5
	Day 30	142	6283.3	5271.8–7488.8	48	7862.9	5645.3–10,951.8
	Month 6	139	3015.0	2528.0–3595.9	40	4061.8	2892.1–5704.6
	Month 7	125	5319.3	4578.1–6180.5	38	5623.0	4106.6–7699.4
9V	Day 1	147	382.8	304.9–480.6	47	495.2	341.8–717.6
	Day 30	142	3167.6	2607.7–3847.7	48	4354.2	3075.7–6164.3
	Month 6	138	1699.6	1414.8–2041.8	40	2313.8	1551.0–3451.7
	Month 7	125	2862.7	2378.0–3446.2	37	3934.8	2683.6–5769.2
14	Day 1	153	467.3	352.1–620.1	48	585.1	358.6–954.4

	Day 30	142	4243.8	3536.7–5092.4	48	5719.5	4360.7–7501.6
	Month 6	140	2125.8	1754.8–2575.2	39	3240.4	2454.6–4277.7
	Month 7	126	4716.3	3907.5–5692.4	38	4774.0	3658.8–6229.3
18C	Day 1	150	169.7	135.5–212.4	47	127.8	90.6–180.3
	Day 30	141	5544.1	4419.1–6955.5	48	3636.3	2587.4–5110.5
	Month 6	139	2387.2	1945.1–2929.7	39	1476.9	969.7–2249.3
	Month 7	126	3096.1	2620.7–3657.7	38	2351.5	1763.2–3136.0
19A	Day 1	151	437.4	344.7–554.9	47	332.8	213.0–519.8
	Day 30	142	6082.5	5058.1–7314.4	48	9465.3	6443.5–13,904.2
	Month 6	140	2721.2	2311.9–3202.9	40	3328.9	2289.4–4840.3
	Month 7	124	4726.4	3922.3–5695.4	38	5790.9	4464.7–7511.1
19F	Day 1	152	332.7	263.7–419.6	47	313.3	204.4–480.4
	Day 30	142	3214.2	2722.3–3794.9	48	4606.9	3359.8–6316.8
	Month 6	140	1655.0	1391.8–1968.1	40	2102.8	1550.3–2852.3
	Month 7	126	3603.6	3092.7–4199.0	38	3800.5	2885.7–5005.2
23F	Day 1	146	126.9	93.0–173.1	44	147.1	82.8–261.3
	Day 30	142	4739.4	3774.4–5951.1	47	4549.7	2899.6–7138.8
	Month 6	139	2045.0	1637.5–2554.0	40	1925.5	1215.2–3051.0
	Month 7	126	2796.2	2297.2–3403.5	38	3327.1	2146.2–5157.8

2 Additional Serotypes in V114

22F	Day 1	138	147.7	96.8–225.3	45	122.9	57.4–263.2
	Day 30	141	4983.3	4062.7–6112.7	45	201.6	91.8–442.7
	Month 6	137	2355.4	1987.4–2791.6	34	176.8	68.4–457.4
	Month 7	126	4804.8	3990.5–5785.4	37	4616.1	3239.9–6577.0
33F	Day 1	153	1824.7	1424.1–2337.9	49	2017.4	1323.5–3075.2
	Day 30	142	13,611.0	11,281.0–16,422.3	47	1679.4	1029.8–2738.7
	Month 6	139	6567.9	5445.4–7921.7	40	1680.6	1003.6–2814.3
	Month 7	125	12,669.8	9945.6–16,140.2	38	19,805.3	12,557.6–31,235.8

N is the number of participants randomized and vaccinated; n is the number of participants contributing to the analysis. Per protocol, Day 1 is pre-vaccination with PCV, Day 30 is 30 days following vaccination with PCV, Month 6 is 6 months following vaccination with PCV and pre-vaccination with PPSV23, and Month 7 is 30 days following vaccination with PPSV23.

CI: confidence interval; GMT: geometric mean titer (1/dilution); OPA: opsonophagocytic activity; PCV: pneumococcal conjugate vaccine; PCV13: 13-valent pneumococcal conjugate vaccine; PPSV23: 23-valent pneumococcal polysaccharide vaccine; V114: 15-valent pneumococcal conjugate vaccine.

†The within-group 95% CIs are obtained by exponentiating the CIs of the mean of the natural log values based on the t-distribution.

Supplemental Table 12. Summary of OPA GMTs for participants with only tobacco use

Pneumococcal Serotype	Timepoint	V114 N = 165			PCV13 N = 56		
		n	Observed GMT	95% CI [†]	n	Observed GMT	95% CI [†]
1	Day 1	164	6.4	5.6–7.4	56	6.6	5.1–8.5
	Day 30	152	277.2	215.7–356.3	50	196.6	119.8–322.5
	Month 6	133	74.2	55.4–99.2	45	55.9	31.5–99.4
	Month 7	117	244.5	188.1–317.9	38	157.8	99.2–251.2
3	Day 1	164	23.2	19.1–28.1	55	20.4	14.7–28.2
	Day 30	148	177.4	143.9–218.6	49	143.6	99.0–208.2
	Month 6	130	106.9	85.5–133.7	44	74.6	50.0–111.4
	Month 7	117	201.7	160.6–253.3	39	189.0	120.5–296.3
4	Day 1	163	61.7	47.6–79.9	56	49.2	32.7–74.0
	Day 30	150	1224.7	990.4–1514.4	50	2821.6	2056.4–3871.6
	Month 6	133	507.4	399.9–643.7	45	923.4	621.2–1372.5
	Month 7	117	1345.7	1103.2–1641.4	39	1649.0	1287.1–2112.7
5	Day 1	164	21.0	17.9–24.6	56	22.2	16.4–29.9
	Day 30	152	474.8	372.4–605.4	50	653.2	426.1–1001.2

	Month 6	133	206.2	159.4–266.8	45	192.7	115.4–321.8
	Month 7	117	518.7	411.6–653.6	39	504.4	332.8–764.5
6A	Day 1	148	464.9	369.6–584.7	53	447.0	309.8–644.9
	Day 30	147	10,086.8	8198.1–12,410.6	49	10,489.0	7120.0–15,452.0
	Month 6	131	5518.7	4515.6–6744.5	44	3776.8	2689.8–5303.2
	Month 7	115	5806.3	4706.6–7163.1	38	5098.2	3600.5–7218.8
6B	Day 1	163	269.8	197.8–368.1	55	252.8	141.3–452.3
	Day 30	148	9535.1	8050.3–11,293.8	50	6069.2	4019.7–9163.5
	Month 6	132	4874.3	4058.1–5854.6	45	2756.6	1711.2–4440.6
	Month 7	117	5336.2	4509.9–6313.9	39	3958.7	2498.6–6272.1
7F	Day 1	150	744.6	563.8–983.4	52	425.5	254.3–712.1
	Day 30	152	4595.9	3943.9–5355.8	50	7552.7	5900.6–9667.3
	Month 6	133	2872.2	2466.4–3344.7	45	3692.1	2779.9–4903.7
	Month 7	117	5071.2	4243.0–6061.0	39	6083.6	4638.9–7978.2
9V	Day 1	162	626.4	502.6–780.7	56	514.2	362.8–728.7
	Day 30	152	3305.5	2798.0–3905.0	50	4131.6	3164.4–5394.4
	Month 6	133	1971.7	1663.4–2337.1	45	1774.1	1320.2–2384.1
	Month 7	117	3016.6	2522.3–3607.7	39	3023.6	2201.7–4152.4
14	Day 1	158	538.9	415.0–699.7	54	672.3	452.5–998.8

	Day 30	149	4692.6	3894.0–5655.0	50	7771.7	5515.3–10,951.3
	Month 6	133	2634.6	2180.4–3183.4	45	3695.4	2445.9–5583.3
	Month 7	117	4939.7	4199.0–5811.0	39	5916.3	3783.3–9251.8
18C	Day 1	161	219.7	174.3–276.8	56	213.3	142.7–319.0
	Day 30	151	5140.4	4396.0–6010.8	50	3428.7	2627.6–4474.2
	Month 6	133	2615.5	2197.0–3113.8	45	1615.7	1215.1–2148.5
	Month 7	117	3286.9	2752.1–3925.5	39	2328.4	1808.2–2998.4
19A	Day 1	160	472.1	375.7–593.2	55	416.1	268.2–645.7
	Day 30	151	4825.1	4022.8–5787.4	50	5558.2	4278.2–7221.0
	Month 6	132	2520.8	2134.5–2977.1	45	3141.1	2405.4–4101.7
	Month 7	116	4315.2	3535.8–5266.5	39	3965.1	3049.3–5156.0
19F	Day 1	163	387.7	313.1–480.1	55	324.9	216.8–486.9
	Day 30	152	2955.4	2484.3–3515.8	50	2965.9	2375.4–3703.4
	Month 6	132	1720.7	1450.3–2041.5	45	1790.9	1278.8–2508.0
	Month 7	117	2945.6	2498.0–3473.4	39	2841.0	2073.9–3891.8
23F	Day 1	152	178.9	131.9–242.6	50	148.2	87.2–252.0
	Day 30	150	4221.6	3383.3–5267.7	50	4057.9	2926.6–5626.4
	Month 6	133	2089.6	1637.9–2665.9	44	2084.5	1479.3–2937.4
	Month 7	116	2534.1	2017.5–3182.9	39	2397.3	1646.2–3491.2

2 Additional Serotypes in V114

22F	Day 1	141	217.6	142.4–332.4	50	125.2	60.4–259.3
	Day 30	147	3240.9	2650.7–3962.5	43	200.9	90.1–447.9
	Month 6	131	1746.7	1391.4–2192.6	40	272.9	117.6–633.3
	Month 7	115	3140.7	2544.1–3877.3	39	3946.3	2264.2–6877.9
33F	Day 1	164	2327.3	1915.6–2827.5	55	1945.2	1227.2–3083.2
	Day 30	150	10,360.0	8676.1–12,370.9	49	1600.3	945.5–2708.6
	Month 6	133	6401.4	5411.3–7572.6	45	2218.9	1542.9–3191.1
	Month 7	115	11,983.5	9884.6–14,528.1	38	14,800.3	9745.7–22,476.5

N is the number of participants randomized and vaccinated; n is the number of participants contributing to the analysis. Per protocol, Day 1 is pre-vaccination with PCV, Day 30 is 30 days following vaccination with PCV, Month 6 is 6 months following vaccination with PCV and pre-vaccination with PPSV23, and Month 7 is 30 days following vaccination with PPSV23.

CI: confidence interval; GMT: geometric mean titer (1/dilution); OPA: opsonophagocytic activity; PCV: pneumococcal conjugate vaccine; PCV13: 13-valent pneumococcal conjugate vaccine; PPSV23: 23-valent pneumococcal polysaccharide vaccine; V114: 15-valent pneumococcal conjugate vaccine.

†The within-group 95% CIs are obtained by exponentiating the CIs of the mean of the natural log values based on the t-distribution.

Supplemental Table 13. Summary of IgG GMCs for participants with only chronic heart disease

Pneumococcal Serotype		V114 N = 57			PCV13 N = 20		
13 Shared Serotypes	Timepoint	n	Observed GMC	95% CI†	n	Observed GMC	95% CI†
1	Day 1	51	0.43	0.28–0.66	18	0.39	0.22–0.69
	Day 30	47	4.14	2.77–6.20	17	3.51	1.98–6.22
	Month 6	40	2.53	1.68–3.79	16	2.82	1.39–5.72
	Month 7	30	4.35	2.89–6.54	11	4.28	2.21–8.30
3	Day 1	51	0.18	0.12–0.27	18	0.16	0.09–0.29
	Day 30	47	0.95	0.67–1.33	17	0.57	0.32–1.01
	Month 6	40	0.63	0.43–0.94	16	0.32	0.18–0.57
	Month 7	30	0.97	0.66–1.44	11	0.85	0.48–1.51
4	Day 1	51	0.36	0.27–0.48	18	0.16	0.08–0.33
	Day 30	47	2.68	1.78–4.04	17	2.55	1.28–5.07
	Month 6	40	1.39	0.93–2.09	16	0.92	0.47–1.77
	Month 7	30	2.33	1.59–3.42	11	1.94	0.94–4.00
5	Day 1	51	0.94	0.77–1.15	18	0.99	0.61–1.61
	Day 30	47	4.34	2.93–6.43	17	6.43	2.85–14.50

	Month 6	40	2.12	1.50–3.00	16	4.49	2.04–9.88
	Month 7	30	4.35	2.90–6.52	11	10.78	4.24–27.38
6A	Day 1	51	0.51	0.32–0.81	18	0.31	0.14–0.66
	Day 30	47	14.78	8.54–25.58	17	8.78	2.89–26.71
	Month 6	40	6.41	3.83–10.72	16	4.87	1.51–15.76
	Month 7	30	6.45	3.38–12.33	11	6.80	1.88–24.62
6B	Day 1	51	0.80	0.51–1.25	18	0.46	0.22–0.95
	Day 30	47	21.39	13.10–34.92	17	8.92	2.93–27.19
	Month 6	40	11.20	7.34–17.08	16	5.18	1.56–17.20
	Month 7	30	12.52	7.61–20.58	11	7.07	1.92–26.04
7F	Day 1	51	0.76	0.55–1.06	18	0.31	0.20–0.48
	Day 30	47	8.87	6.33–12.44	17	6.30	3.54–11.18
	Month 6	40	5.00	3.44–7.27	16	3.85	2.09–7.10
	Month 7	30	6.06	3.80–9.65	11	5.59	3.08–10.14
9V	Day 1	51	0.64	0.45–0.92	18	0.31	0.17–0.57
	Day 30	47	7.33	5.28–10.17	17	3.96	1.97–7.95
	Month 6	40	4.09	2.87–5.82	16	2.46	1.09–5.54
	Month 7	30	6.19	4.21–9.08	11	3.66	1.37–9.75
14	Day 1	51	3.05	1.85–5.04	18	1.15	0.48–2.75

	Day 30	47	23.75	15.66–36.04	17	9.39	4.61–19.13
	Month 6	40	17.81	11.43–27.74	16	8.81	3.92–19.78
	Month 7	30	23.96	14.16–40.56	11	16.19	5.47–47.85
18C	Day 1	51	0.74	0.53–1.02	18	0.54	0.29–0.99
	Day 30	47	24.20	16.88–34.71	17	6.78	3.34–13.77
	Month 6	40	9.60	6.53–14.11	16	4.02	2.24–7.19
	Month 7	30	10.07	6.39–15.89	11	3.55	1.87–6.77
19A	Day 1	51	1.74	1.29–2.35	18	1.16	0.70–1.93
	Day 30	47	16.27	11.34–23.35	17	11.61	5.48–24.61
	Month 6	40	7.18	4.99–10.34	16	6.42	3.01–13.68
	Month 7	30	10.12	6.27–16.33	11	7.86	2.84–21.76
19F	Day 1	51	1.24	0.84–1.82	18	0.72	0.40–1.32
	Day 30	47	12.62	8.73–18.24	17	6.87	3.77–12.51
	Month 6	40	5.99	4.16–8.63	16	3.60	1.78–7.29
	Month 7	30	9.19	6.06–13.93	11	5.25	2.05–13.49
23F	Day 1	51	0.62	0.40–0.95	18	0.32	0.17–0.59
	Day 30	47	10.77	6.90–16.80	17	4.91	2.70–8.93
	Month 6	40	4.57	2.98–7.01	16	2.46	1.32–4.59
	Month 7	30	4.93	2.82–8.60	11	3.05	1.32–7.05

2 Additional Serotypes in V114

22F	Day 1	51	0.32	0.21–0.47	18	0.41	0.23–0.74
	Day 30	47	7.54	5.01–11.36	17	0.40	0.22–0.74
	Month 6	40	3.45	2.26–5.27	16	0.40	0.21–0.75
	Month 7	30	4.98	3.13–7.93	11	6.24	2.64–14.74
33F	Day 1	51	1.29	0.90–1.85	18	0.85	0.54–1.32
	Day 30	47	8.68	5.49–13.72	17	0.90	0.51–1.58
	Month 6	40	5.74	3.64–9.07	16	0.94	0.62–1.41
	Month 7	30	8.72	5.30–14.34	11	12.90	4.28–38.95

N is the number of participants randomized and vaccinated; n is the number of participants contributing to the analysis. Per protocol, Day 1 is pre-vaccination with PCV, Day 30 is 30 days following vaccination with PCV, Month 6 is 6 months following vaccination with PCV and pre-vaccination with PPSV23, and Month 7 is 30 days following vaccination with PPSV23.

CI: confidence interval; GMC: geometric mean concentration; IgG: immunoglobulin G; PCV: pneumococcal conjugate vaccine; PCV13: 13-valent pneumococcal conjugate vaccine; PPSV23: 23-valent pneumococcal polysaccharide vaccine; V114: 15-valent pneumococcal conjugate vaccine.

[†]The within-group 95% CIs are obtained by exponentiating the CIs of the mean of the natural log values based on the t-distribution.

Supplemental Table 14. Summary of IgG GMCs for participants with only chronic liver disease or only alcohol consumption

Pneumococcal Serotype		V114 N = 78			PCV13 N = 27		
13 Shared Serotypes	Timepoint	n	Observed GMC	95% CI [†]	n	Observed GMC	95% CI [†]
1	Day 1	78	0.22	0.17–0.29	27	0.33	0.19–0.55
	Day 30	70	3.08	2.22–4.27	23	4.49	2.38–8.45
	Month 6	62	1.12	0.77–1.62	25	1.86	1.01–3.45
	Month 7	58	2.56	1.93–3.41	23	2.93	1.75–4.91
3	Day 1	78	0.16	0.12–0.22	27	0.16	0.11–0.23
	Day 30	70	0.84	0.65–1.09	23	0.68	0.47–0.98
	Month 6	62	0.43	0.33–0.57	25	0.31	0.21–0.44
	Month 7	58	0.73	0.56–0.95	23	0.67	0.44–1.01
4	Day 1	78	0.17	0.14–0.22	27	0.14	0.10–0.20
	Day 30	69	1.21	0.87–1.68	23	2.62	1.59–4.32
	Month 6	62	0.54	0.38–0.77	25	0.89	0.52–1.53
	Month 7	58	1.13	0.83–1.54	23	1.63	1.04–2.56
5	Day 1	78	0.56	0.48–0.66	27	0.80	0.54–1.17
	Day 30	70	2.26	1.69–3.03	23	3.84	2.03–7.28

	Month 6	62	1.22	0.95–1.57	25	1.83	1.11–3.04
	Month 7	58	2.38	1.77–3.21	23	3.20	1.96–5.21
6A	Day 1	78	0.28	0.21–0.38	27	0.32	0.17–0.59
	Day 30	70	12.36	8.34–18.32	23	14.02	6.72–29.28
	Month 6	62	4.01	2.71–5.94	25	4.57	2.19–9.54
	Month 7	58	3.84	2.57–5.73	23	4.63	2.22–9.67
6B	Day 1	78	0.38	0.29–0.51	27	0.43	0.25–0.74
	Day 30	70	18.62	12.99–26.70	23	12.49	6.10–25.58
	Month 6	62	6.22	4.31–8.96	25	4.33	2.13–8.79
	Month 7	58	6.45	4.45–9.33	23	6.08	3.09–11.98
7F	Day 1	78	0.35	0.28–0.45	27	0.39	0.25–0.61
	Day 30	70	6.07	4.35–8.47	23	6.21	3.43–11.24
	Month 6	62	2.26	1.59–3.20	25	2.10	1.19–3.70
	Month 7	58	3.52	2.63–4.72	23	3.69	2.25–6.04
9V	Day 1	78	0.50	0.38–0.66	27	0.41	0.27–0.63
	Day 30	70	5.55	3.99–7.74	23	6.97	4.12–11.79
	Month 6	62	2.46	1.77–3.40	25	2.87	1.63–5.03
	Month 7	58	3.79	2.81–5.12	23	3.38	2.00–5.71
14	Day 1	78	1.22	0.87–1.73	27	1.45	0.74–2.85

	Day 30	70	15.12	10.59–21.57	23	24.22	11.74–49.94
	Month 6	62	6.67	4.66–9.55	25	10.36	5.18–20.70
	Month 7	58	11.06	7.85–15.60	23	12.90	6.44–25.86
18C	Day 1	78	0.50	0.38–0.65	27	0.29	0.19–0.46
	Day 30	70	15.93	11.75–21.60	23	7.33	3.27–16.46
	Month 6	62	5.06	3.63–7.06	25	2.79	1.55–5.04
	Month 7	58	5.25	3.80–7.27	23	3.22	1.77–5.85
19A	Day 1	78	1.88	1.46–2.41	27	1.21	0.88–1.67
	Day 30	70	29.28	22.33–38.41	23	25.51	12.53–51.95
	Month 6	62	10.57	7.94–14.05	25	8.86	4.90–16.02
	Month 7	58	14.39	10.96–18.88	23	12.45	7.23–21.45
19F	Day 1	78	0.87	0.66–1.16	27	0.71	0.47–1.08
	Day 30	70	18.45	13.67–24.89	23	21.26	12.53–36.09
	Month 6	62	6.23	4.40–8.83	25	7.17	4.50–11.42
	Month 7	58	9.65	7.08–13.15	23	11.89	8.25–17.12
23F	Day 1	78	0.41	0.31–0.55	27	0.47	0.27–0.82
	Day 30	70	16.73	11.99–23.34	23	13.66	7.27–25.69
	Month 6	61	4.46	3.15–6.34	25	4.71	2.59–8.56
	Month 7	58	5.16	3.77–7.06	23	5.30	2.94–9.52

2 Additional Serotypes in V114

22F	Day 1	78	0.67	0.50–0.90	27	0.70	0.42–1.16
	Day 30	70	7.66	5.80–10.12	23	0.70	0.40–1.22
	Month 6	62	2.96	2.28–3.84	25	0.74	0.45–1.23
	Month 7	58	5.15	4.07–6.52	23	4.89	2.41–9.94
33F	Day 1	78	1.02	0.76–1.38	27	0.91	0.61–1.35
	Day 30	70	8.59	5.94–12.41	23	0.92	0.59–1.43
	Month 6	62	3.83	2.68–5.48	25	0.79	0.52–1.21
	Month 7	58	6.30	4.60–8.64	23	7.85	4.79–12.85

N is the number of participants randomized and vaccinated; n is the number of participants contributing to the analysis. Per protocol, Day 1 is pre-vaccination with PCV, Day 30 is 30 days following vaccination with PCV, Month 6 is 6 months following vaccination with PCV and pre-vaccination with PPSV23, and Month 7 is 30 days following vaccination with PPSV23.

CI: confidence interval; GMC: geometric mean concentration; IgG: immunoglobulin G; PCV: pneumococcal conjugate vaccine; PCV13: 13-valent pneumococcal conjugate vaccine; PPSV23: 23-valent pneumococcal polysaccharide vaccine; V114: 15-valent pneumococcal conjugate vaccine.

†The within-group 95% CIs are obtained by exponentiating the CIs of the mean of the natural log values based on the t-distribution.

Supplemental Table 15. Summary of IgG GMCs for participants with only chronic lung disease

Pneumococcal Serotype		V114 N = 163			PCV13 N = 53		
13 Shared Serotypes	Timepoint	n	Observed GMC	95% CI [†]	n	Observed GMC	95% CI [†]
1	Day 1	151	0.36	0.30–0.43	51	0.34	0.23–0.50
	Day 30	141	4.35	3.49–5.41	48	4.83	3.29–7.09
	Month 6	128	1.86	1.51–2.29	44	3.45	2.32–5.12
	Month 7	115	3.60	2.99–4.35	41	4.34	3.14–6.01
3	Day 1	151	0.21	0.18–0.26	51	0.19	0.14–0.26
	Day 30	140	0.93	0.79–1.11	48	0.76	0.56–1.04
	Month 6	126	0.50	0.42–0.61	44	0.50	0.35–0.71
	Month 7	115	0.87	0.72–1.05	41	0.97	0.72–1.29
4	Day 1	151	0.18	0.15–0.22	51	0.21	0.15–0.28
	Day 30	138	2.01	1.65–2.46	48	4.21	2.91–6.08
	Month 6	128	0.95	0.77–1.17	44	1.82	1.27–2.62
	Month 7	115	1.70	1.38–2.08	41	2.76	1.96–3.89
5	Day 1	151	0.84	0.74–0.95	51	0.82	0.63–1.06
	Day 30	141	4.22	3.33–5.34	48	4.25	2.57–7.01

	Month 6	128	2.08	1.68–2.58	44	3.17	2.00–5.03
	Month 7	115	3.74	2.98–4.69	41	4.56	3.01–6.88
6A	Day 1	151	0.36	0.28–0.46	51	0.30	0.21–0.45
	Day 30	141	15.47	12.17–19.67	48	9.90	5.99–16.39
	Month 6	128	6.17	4.80–7.93	44	5.84	3.64–9.36
	Month 7	114	6.49	5.12–8.21	41	6.13	3.82–9.83
6B	Day 1	151	0.45	0.36–0.55	51	0.34	0.24–0.49
	Day 30	141	20.88	16.40–26.57	48	9.19	5.60–15.07
	Month 6	128	7.99	6.23–10.25	44	5.27	3.28–8.47
	Month 7	115	8.93	6.97–11.43	41	6.67	4.27–10.40
7F	Day 1	151	0.45	0.36–0.56	51	0.56	0.41–0.77
	Day 30	141	4.84	3.90–6.01	48	7.90	5.36–11.65
	Month 6	128	2.36	1.89–2.94	44	4.62	3.10–6.86
	Month 7	115	4.12	3.35–5.08	41	6.08	4.02–9.18
9V	Day 1	151	0.41	0.34–0.50	51	0.40	0.27–0.60
	Day 30	141	4.63	3.71–5.78	48	3.98	2.66–5.94
	Month 6	127	2.39	1.90–3.01	44	2.17	1.46–3.23
	Month 7	115	3.00	2.44–3.68	41	3.80	2.56–5.64
14	Day 1	151	1.59	1.23–2.05	51	1.59	1.01–2.51

	Day 30	141	16.80	12.76–22.13	48	16.27	11.19–23.67
	Month 6	128	11.11	8.41–14.68	44	11.03	7.36–16.53
	Month 7	115	15.47	12.10–19.78	41	15.66	10.74–22.82
18C	Day 1	151	0.48	0.40–0.58	51	0.45	0.30–0.67
	Day 30	141	15.37	12.55–18.83	48	6.55	4.24–10.12
	Month 6	128	6.68	5.41–8.26	44	3.54	2.31–5.44
	Month 7	115	6.42	5.13–8.03	41	4.14	2.80–6.12
19A	Day 1	151	1.63	1.36–1.95	51	1.48	1.07–2.06
	Day 30	141	15.91	12.95–19.55	48	15.39	10.08–23.48
	Month 6	128	7.74	6.28–9.55	44	7.99	5.13–12.47
	Month 7	115	11.09	8.97–13.71	41	11.44	7.61–17.22
19F	Day 1	151	0.89	0.71–1.12	51	0.62	0.42–0.91
	Day 30	140	11.40	9.18–14.17	48	7.42	5.05–10.90
	Month 6	128	5.10	4.13–6.30	44	3.59	2.34–5.49
	Month 7	115	9.14	7.67–10.89	41	6.43	4.49–9.21
23F	Day 1	151	0.46	0.37–0.59	51	0.60	0.39–0.91
	Day 30	140	15.17	12.18–18.90	48	8.80	5.52–14.03
	Month 6	128	6.14	4.92–7.65	44	4.63	2.80–7.67
	Month 7	115	6.32	4.99–7.99	41	5.28	3.35–8.33

2 Additional Serotypes in V114

22F	Day 1	151	0.38	0.30–0.48	51	0.32	0.22–0.46
	Day 30	141	6.50	5.18–8.15	48	0.35	0.24–0.53
	Month 6	128	2.76	2.25–3.39	44	0.39	0.25–0.59
	Month 7	115	5.36	4.44–6.48	41	7.99	4.97–12.86
33F	Day 1	151	0.88	0.71–1.08	51	0.87	0.58–1.30
	Day 30	141	7.88	6.35–9.78	48	0.81	0.55–1.20
	Month 6	128	3.92	3.16–4.86	44	1.01	0.62–1.62
	Month 7	115	5.85	4.69–7.29	41	8.96	5.48–14.63

N is the number of participants randomized and vaccinated; n is the number of participants contributing to the analysis. Per protocol, Day 1 is pre-vaccination with PCV, Day 30 is 30 days following vaccination with PCV, Month 6 is 6 months following vaccination with PCV and pre-vaccination with PPSV23, and Month 7 is 30 days following vaccination with PPSV23.

CI: confidence interval; GMC: geometric mean concentration; IgG: immunoglobulin G; PCV: pneumococcal conjugate vaccine; PCV13: 13-valent pneumococcal conjugate vaccine; PPSV23: 23-valent pneumococcal polysaccharide vaccine; V114: 15-valent pneumococcal conjugate vaccine.

[†]The within-group 95% CIs are obtained by exponentiating the CIs of the mean of the natural log values based on the t-distribution.

Supplemental Table 16. Summary of IgG GMCs for participants with only diabetes mellitus

Pneumococcal Serotype		V114 N = 157			PCV13 N = 51		
13 Shared Serotypes	Timepoint	n	Observed GMC	95% CI†	n	Observed GMC	95% CI†
1	Day 1	154	0.36	0.30–0.43	49	0.36	0.28–0.47
	Day 30	143	5.14	4.20–6.28	48	6.42	4.33–9.53
	Month 6	140	2.26	1.83–2.78	40	2.91	1.90–4.46
	Month 7	126	3.99	3.40–4.68	38	4.63	3.17–6.78
3	Day 1	154	0.17	0.14–0.20	49	0.14	0.10–0.19
	Day 30	142	0.87	0.74–1.03	48	0.67	0.46–0.97
	Month 6	140	0.45	0.38–0.54	40	0.38	0.25–0.58
	Month 7	126	0.72	0.62–0.83	38	0.76	0.53–1.11
4	Day 1	153	0.20	0.17–0.25	49	0.17	0.13–0.23
	Day 30	143	2.17	1.76–2.67	48	3.73	2.42–5.75
	Month 6	140	1.02	0.83–1.26	40	1.40	0.86–2.29
	Month 7	126	1.85	1.54–2.23	38	2.51	1.73–3.63
5	Day 1	154	0.79	0.70–0.90	49	0.84	0.69–1.02
	Day 30	143	4.47	3.49–5.73	48	7.55	4.83–11.81

	Month 6	140	2.42	1.96–3.00	40	4.38	2.93–6.55
	Month 7	126	4.49	3.62–5.56	38	6.03	4.24–8.59
6A	Day 1	154	0.34	0.27–0.43	49	0.28	0.19–0.40
	Day 30	143	12.02	9.08–15.92	48	11.26	6.72–18.87
	Month 6	140	5.14	4.00–6.62	40	4.46	2.67–7.43
	Month 7	126	5.24	4.05–6.78	38	4.72	2.89–7.73
6B	Day 1	154	0.40	0.32–0.51	49	0.40	0.28–0.58
	Day 30	143	16.67	12.68–21.92	48	12.27	7.49–20.10
	Month 6	140	6.60	5.13–8.50	40	5.65	3.27–9.75
	Month 7	126	7.45	5.81–9.56	38	6.61	3.95–11.06
7F	Day 1	154	0.46	0.37–0.57	49	0.33	0.24–0.46
	Day 30	143	7.96	6.33–10.01	48	7.85	5.42–11.36
	Month 6	140	3.46	2.76–4.34	40	3.04	2.02–4.58
	Month 7	126	5.29	4.32–6.49	38	4.17	2.87–6.05
9V	Day 1	154	0.38	0.32–0.45	49	0.43	0.32–0.59
	Day 30	143	5.15	4.16–6.39	48	7.80	5.46–11.16
	Month 6	140	2.45	2.02–2.96	40	3.73	2.49–5.60
	Month 7	126	3.66	3.05–4.38	38	5.61	4.02–7.84
14	Day 1	154	1.66	1.26–2.19	49	1.73	1.07–2.80

	Day 30	143	16.69	12.65–22.01	48	17.75	12.54–25.11
	Month 6	139	10.12	7.84–13.05	40	12.04	8.74–16.57
	Month 7	126	17.32	13.84–21.66	38	17.87	12.39–25.76
18C	Day 1	154	0.58	0.48–0.69	49	0.40	0.29–0.54
	Day 30	143	17.95	14.08–22.88	48	14.28	10.57–19.31
	Month 6	140	7.31	5.84–9.14	40	4.80	3.41–6.76
	Month 7	126	7.58	6.13–9.36	38	4.82	3.65–6.36
19A	Day 1	154	1.65	1.40–1.96	49	1.20	0.90–1.60
	Day 30	143	18.80	15.17–23.30	48	23.31	15.28–35.55
	Month 6	139	8.51	7.01–10.33	40	8.98	5.90–13.66
	Month 7	126	11.94	9.88–14.43	38	12.42	8.52–18.10
19F	Day 1	154	0.80	0.65–1.00	49	0.81	0.57–1.15
	Day 30	143	12.56	9.83–16.06	48	16.96	11.22–25.62
	Month 6	140	5.41	4.32–6.77	40	6.47	4.26–9.81
	Month 7	126	8.67	7.16–10.50	38	10.68	7.56–15.09
23F	Day 1	154	0.51	0.41–0.63	49	0.52	0.35–0.75
	Day 30	143	15.01	11.59–19.43	48	15.50	10.48–22.94
	Month 6	140	6.22	4.92–7.86	40	6.78	4.41–10.44
	Month 7	126	7.05	5.70–8.72	38	7.19	4.85–10.67

2 Additional Serotypes in V114

22F	Day 1	154	0.43	0.35–0.54	49	0.44	0.29–0.66
	Day 30	143	6.59	5.28–8.23	48	0.47	0.32–0.70
	Month 6	140	2.78	2.28–3.39	40	0.46	0.30–0.70
	Month 7	126	5.08	4.19–6.16	38	5.88	3.74–9.23
33F	Day 1	154	0.97	0.81–1.17	49	0.97	0.69–1.37
	Day 30	143	8.75	6.93–11.05	47	1.05	0.76–1.46
	Month 6	140	4.59	3.65–5.76	40	1.03	0.73–1.46
	Month 7	126	7.09	5.73–8.76	38	15.24	9.30–24.97

N is the number of participants randomized and vaccinated; n is the number of participants contributing to the analysis. Per protocol, Day 1 is pre-vaccination with PCV, Day 30 is 30 days following vaccination with PCV, Month 6 is 6 months following vaccination with PCV and pre-vaccination with PPSV23, and Month 7 is 30 days following vaccination with PPSV23.

CI: confidence interval; GMC: geometric mean concentration; IgG: immunoglobulin G; PCV: pneumococcal conjugate vaccine; PCV13: 13-valent pneumococcal conjugate vaccine; PPSV23: 23-valent pneumococcal polysaccharide vaccine; V114: 15-valent pneumococcal conjugate vaccine.

†The within-group 95% CIs are obtained by exponentiating the CIs of the mean of the natural log values based on the t-distribution.

Supplemental Table 17. Summary of IgG GMCs for participants with only tobacco use

Pneumococcal Serotype		V114 N = 165			PCV13 N = 56		
13 Shared Serotypes	Timepoint	n	Observed GMC	95% CI [†]	n	Observed GMC	95% CI [†]
1	Day 1	165	0.25	0.22–0.29	56	0.25	0.18–0.34
	Day 30	152	3.30	2.73–4.00	50	4.35	3.02–6.27
	Month 6	133	1.38	1.13–1.69	45	1.85	1.18–2.90
	Month 7	117	2.52	2.08–3.07	39	3.14	2.24–4.41
3	Day 1	165	0.17	0.15–0.21	56	0.17	0.13–0.24
	Day 30	152	0.73	0.61–0.87	50	0.66	0.48–0.91
	Month 6	133	0.42	0.35–0.51	45	0.36	0.25–0.51
	Month 7	117	0.62	0.51–0.74	39	0.63	0.46–0.86
4	Day 1	165	0.20	0.17–0.24	56	0.13	0.10–0.17
	Day 30	152	1.60	1.29–1.98	50	2.15	1.47–3.14
	Month 6	133	0.76	0.62–0.94	45	0.82	0.53–1.26
	Month 7	117	1.18	0.97–1.44	38	1.20	0.80–1.80
5	Day 1	165	0.91	0.80–1.04	56	0.91	0.70–1.18
	Day 30	152	3.05	2.45–3.80	50	3.94	2.54–6.11

	Month 6	133	2.03	1.65–2.49	45	2.10	1.39–3.16
	Month 7	117	3.09	2.47–3.87	39	3.74	2.49–5.62
6A	Day 1	165	0.33	0.27–0.41	56	0.24	0.17–0.34
	Day 30	152	10.06	7.80–12.95	50	10.20	6.75–15.41
	Month 6	133	4.53	3.54–5.80	45	3.59	2.34–5.52
	Month 7	117	3.94	3.03–5.12	39	4.10	2.61–6.43
6B	Day 1	165	0.45	0.37–0.55	56	0.33	0.24–0.45
	Day 30	152	15.81	12.54–19.95	50	8.26	5.04–13.56
	Month 6	133	6.88	5.44–8.70	45	3.21	1.96–5.25
	Month 7	117	6.56	5.11–8.42	39	4.08	2.56–6.49
7F	Day 1	165	0.38	0.32–0.45	56	0.37	0.25–0.54
	Day 30	152	4.18	3.40–5.15	50	7.43	4.91–11.25
	Month 6	133	1.96	1.58–2.42	45	2.80	1.78–4.41
	Month 7	117	3.27	2.62–4.07	39	4.23	2.81–6.38
9V	Day 1	165	0.41	0.35–0.48	56	0.32	0.24–0.42
	Day 30	152	3.66	3.02–4.43	50	4.52	3.08–6.61
	Month 6	133	1.98	1.61–2.44	45	2.05	1.39–3.02
	Month 7	117	3.00	2.40–3.74	39	2.70	1.85–3.93
14	Day 1	165	1.41	1.13–1.77	56	1.34	0.89–2.00

	Day 30	152	15.85	12.39–20.27	50	19.07	11.62–31.29
	Month 6	133	9.23	7.19–11.83	45	11.62	7.29–18.51
	Month 7	117	15.13	11.84–19.33	39	14.45	9.39–22.22
18C	Day 1	165	0.46	0.38–0.55	56	0.53	0.37–0.76
	Day 30	152	11.99	9.70–14.83	50	11.06	7.40–16.51
	Month 6	133	5.14	4.10–6.43	45	4.09	2.61–6.42
	Month 7	117	5.09	4.00–6.48	39	4.86	3.13–7.56
19A	Day 1	165	1.75	1.51–2.02	56	1.58	1.15–2.15
	Day 30	152	18.03	14.83–21.93	50	20.49	13.68–30.69
	Month 6	133	8.66	7.28–10.31	45	7.95	5.05–12.52
	Month 7	117	10.99	8.93–13.52	39	10.92	7.19–16.58
19F	Day 1	165	0.97	0.80–1.18	56	0.79	0.57–1.09
	Day 30	152	12.72	10.33–15.66	50	10.45	6.88–15.86
	Month 6	133	5.42	4.46–6.58	45	4.62	2.96–7.20
	Month 7	117	8.04	6.55–9.85	39	7.58	4.91–11.71
23F	Day 1	165	0.52	0.43–0.63	56	0.51	0.38–0.68
	Day 30	152	12.35	9.84–15.51	50	10.29	6.79–15.61
	Month 6	133	5.23	4.14–6.61	45	4.38	2.80–6.85
	Month 7	117	5.08	3.97–6.50	39	4.97	3.24–7.62

2 Additional Serotypes in V114

22F	Day 1	165	0.51	0.41–0.64	56	0.38	0.26–0.56
	Day 30	152	5.64	4.57–6.96	50	0.39	0.26–0.57
	Month 6	133	2.74	2.20–3.41	45	0.40	0.26–0.61
	Month 7	117	4.66	3.70–5.87	39	4.75	2.96–7.62
33F	Day 1	165	0.88	0.73–1.06	56	0.87	0.61–1.25
	Day 30	152	6.84	5.48–8.54	50	0.81	0.57–1.16
	Month 6	133	3.63	2.88–4.56	45	0.70	0.50–0.97
	Month 7	117	5.43	4.21–7.01	39	7.20	4.61–11.26

N is the number of participants randomized and vaccinated; n is the number of participants contributing to the analysis. Per protocol, Day 1 is pre-vaccination with PCV, Day 30 is 30 days following vaccination with PCV, Month 6 is 6 months following vaccination with PCV and pre-vaccination with PPSV23, and Month 7 is 30 days following vaccination with PPSV23.

CI: confidence interval; GMC: geometric mean concentration; IgG: immunoglobulin G; PCV: pneumococcal conjugate vaccine; PCV13: 13-valent pneumococcal conjugate vaccine; PPSV23: 23-valent pneumococcal polysaccharide vaccine; V114: 15-valent pneumococcal conjugate vaccine.

[†]The within-group 95% CIs are obtained by exponentiating the CIs of the mean of the natural log values based on the t-distribution.